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# The Chinese Banking Sector - An Institutional Perspective

## Dissertation

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# I Introduction

## 1. Thematic Background

For almost three decades of economic reform and transition the banking sector in the People's Republic of China has provided funding to cushion the consequences of the reform process initiated by Deng Xiaoping. Government recourse to the state-owned banks has been common on all levels which has left banks with a vast amount of non-performing loans estimated to range between 25 and more than 50 percent of total domestic assets. Severe governance problems and incoherent policy mixes contributed to the impression of many observers that the Chinese banking sector was doomed to fail on a broad scale. However, slowly but steadily since 2003, market sentiment and the perception of Chinese banks has shifted to the more optimistic.

In the last quarter of a century, the People's Republic of China (PRC) has quadrupled its gross domestic product. The number of people living in poverty fell from 250 million to around 50 million and life expectancy increased from 64 years in the 1970ies to 70 in the late 1990ies. The economic structure also seems to be better balanced than feared by many analysts with a larger proportion of services contributing to the Chinese gross domestic product. Most surprising for many observers, the almost three decades of economic growth were generated in the absence of major political reforms and in an environment of only little liberalization, insecure property rights, corruption and a lack of rule of law. And despite the still dominating position of the big four state-owned banks - i.e. Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Bank of China (BoC), and Agricultural Bank of China (ABC) - the degree of competition in the Chinese banking sector has increased and is significant. To further stabilize domestic banks, China's central bank has since the mid-1990ies injected 1.4 trillion Renminbi (RMB) in loans, and has transferred an additional 60 billion US Dollars to the Bank of China, the China Construction Bank and the Industrial and Commercial Bank of China. Around 168 billion RMB have been given to rural credit cooperatives[1].

Despite these reform efforts and visible positive developments there are indications that financial distress could continue to be a threat while at the same time foreign investors are willing to pay large amounts for small stakes and even less control in Chinese banks. For example in June 2005 the National Development and Reform Commission admitted that the banking sector still faces severe challenges concerning credit, interest rates, operations and liquidity. The strong economic data may consequently not only imply positive news for the still fragile Chinese banking sector. Despite cooling measures, fixed investment is growing rapidly and partly companies are generating significant industrial losses. The Chinese exchange rate regime obviously contributes to high liquidity levels on the Mainland which fuel increasingly large lending volumes and asset inflation since alternative investment opportunities are still rare.

An admittedly delicate comparison to banking sector distress in Japan also justifies caution and ongoing monitoring of the Chinese banking system. Among the most important trigger factors in Japan in the 1990ies were excess liquidity, deregulation, increased competition, property speculation[2], the lack of investment opportunities, risk management failure at investor and bank level as well as government failure to address excessive market movements[3]. Today, all these factors can also be observed in the Chinese banking sector. In China the still poor credit culture, governance deficits, strong state ownership, and an uncertain policy and legal environment add further stress factors. Hence, the institutional framework of the Chinese banking sector is worth a closer examination.

The importance of institutions for economic development is widely acknowledged today even though the exact degree of their impact on economic indicators is still discussed[4]. With a high relevance of informal institutions - which partly contradict formal rules and regulation - the resulting incentive scheme determines the resource allocation in the Chinese banking sector. Empirically and also from an institutional economics perspective, factors like competition, state ownership, governance, insolvency procedures, and the rule of law are essential contributors to banking sector stability. Further, capital markets as well as fiscal and monetary policy have proven to be relevant determinants which can add to financial distress in banks.

Obviously, during the economic transition this institutional framework in the People's Republic was subject to significant changes. In part, this shift resembles a bottom-up evolution in which the government merely reacted to actions taken by the market participants.

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1 See e.g. Caijing Magazine, issue 138, 25. July 2005, "Central Bank Loans Free-for-All" by Yu Ni.

2 Via the jusen, a vehicle that borrowed from banks and lent money to private borrowers to buy real estate; property development turned into a speculative instrument.

3 [Arayama, 2000], p.78. On the Japanese banking crisis in the 1990ies see [Ueda, 1999].

4 See for example [Edison, 2003], p.35. This study finds positive correlations between institutional quality, income and growth levels and a negative correlation between institutional quality and the volatility of growth. The applied econometric framework relates variables on institutions, economic policy and exogenous variables to macroeconomic outcomes for each country. On institutional importance see also [Rodrik, 2003], p.33. Other authors attribute only little importance to the political system, see [Easterly, 2002]. For a discussion about endowment and geography in relation with institutions see for example [Sachs, 2003], p.41. See also [North, 1991], p.97ff. or the World Bank Doing Business Report 2004 and [Hendricks, 2002].

In other areas, the government took the lead and has set rules in accordance with either ideological lines or with internationally accepted standards. Against this background an analysis of the institutional impact on indicators that are core to banking sector soundness may generate further insight in the current condition of the Mainland Chinese banking sector and may indicate potential flaws in the institutional setting.

## 2. Definitions

### 2.1. Institutions and Organizations

Under strategic insecurity, i.e. when the outcome depends on the actions of at least two people, institutions become important to structure human interaction, to reduce insecurity and to make outcomes more efficient[5]. When multiple agencies are involved with an even larger number of individuals, multiple layers of agents and principals have to coordinate so that the importance of institutions increases further. However, a comprehensive and widely accepted definition of institutions has not been established which usually complicates the practical application of new institutional ideas[6]. In general, either a positive or a normative institutional approach to a specific problem can be chosen which then influences the initial structure of an analysis. Positive institutional analyses focus on the impact of institutions in a deductive approach. Reality is understood as a model under the ceteris-paribus assumption to derive the dependent variables and the derived hypotheses can be empirically tested. Contrary to this, the normative institutional approach concentrates on the design of institutions. By trying to define objective criteria it compares states of nature and measures relative to alternatives. The positive approach can thus be understood as a basis for normative analyses.

Since this paper focuses on the impact analysis of the existing institutional framework on the Chinese banking sector, the positive approach to institutions is more appropriate in this specific case. Further, to capture as many influencing variables as possible, a comprehensive definition of institutions will be adopted. Institutions are thus defined as rules in social interaction which structure human behaviour in repeated situations and which evolve either unintended by human action over time or by public and private contracting. Additionally, under the applied definition, institutions need relevant enforcement mechanisms[7]. This positive definition stresses the essential function of institutions which is to facilitate human

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5 This can be differentiated from parametric insecurity where the outcome depends on the state of nature; see for example [Voigt, 2002], p.32.

6 This has been perceived as a threat to the theoretical development of new institutional economics by some authors; see [Ostrom, 1986], p.4.

7 [Richter, 2003], p.7

interaction by influencing human behaviour and thereby saving costs. Hence, institutions in this sense structure economic interaction by carrying information which can reduce complexity and uncertainty in human interaction[8] and bring burden relief by simplifying complex decision-making situations. They can generate motivation[9] and coordinate so that predictability increases and uncertainty is reduced[10].

To facilitate and structure the institutional analysis, this paper differentiates between formal and informal institutions. Formal rules include political, economic and judicial rules as well as contracts and they imply a hierarchy among rules[11]. They are divided into two subtypes. The first subtype is set and sanctioned by an authority in a top-down approach. The second formal subtype, while created by independent individuals in a bottom-up process, is also sanctioned by a superior authority[12]. This official sanctioning uses various monitoring mechanisms. In some cases the group will monitor individual behaviour and will go to court when the specific institution is not adhered to. This illustrates an organized private control through other players. In other cases the authority will proactively take action by investigating against the defector in an approach of organized official control[13]. Generally, formal institutions are enforced not in a spontaneous way but by planned monitoring and sanctioning. Contrary to this, informal institutions - created in a bottom-up process - are sanctioned by society and are harder to identify and account for[14]. Three types of informal constraints are relevant for this paper. First, extensions, elabourations and modifications of formal rules that solve coordination problems; second, socially sanctioned norms of behaviour which are not self-enforcing; and third, internally enforced standards of conduct which modify behaviour and which constitute a trade-off between wealth maximization and other individual goals. Derived from the cultural background of a group, informal rules help the individual to encode and interpret incoming information and can foster continuity. For example kinship seems to be an integral institutional part of societies with an evolving and changing framework of formal institutions. Here, kinship provides insurance, protection and the relevant enforcement

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8 Compare [North, 1993], p.3 and [Voigt, 2002], p.38.

9 They limit interaction between human beings to structure political, social or economic transactions; see [North, 1990], p.3.

10 On the importance of these functions see [Pejovich, 1995], p.30.

11 Constitutions, private law, statute law, common law, contracts and bylaws; see e.g. [North, 1990], p.47.

12 Compare e.g. [Richter, 2003], p.346.

13 For further elabouration on enforcement see [North, 1990], p.54ff.

14 Conventions, ethical rules and customs respectively; see among others [North, 1990], p.4 and p.61 or [Kiwit, 1995].

mechanisms[15]. Informal institutions imply an even broader array of sanctioning mechanisms. Informal institutions which structure pure coordination games are mainly self-policing and compatible with the incentives of participants[16]. Socially sanctioned norms of behaviour which are not self-enforcing may not be in line with the individual's cost-benefit calculus. However, in the form of e.g. ethical standards they can be internalized and may as such generate an intrinsic motivation to adhere to them. Contrary to this, internally enforced standards of conduct are spontaneously sanctioned by other players and may thus foster collective action problems.

For the analysis of the banking sector obviously organizations as a special type of institutions need to be included in the definition. These institutions differ slightly from other institutional arrangements since their contractual network between the involved individuals - or the "nexus of contracts" - brings about a decision-making entity which acts in the markets as a partner for interaction. This setting includes internal cooperation and external interaction. However, the generation of specific gains from cooperation and interaction is core to the success of organizations and as with other institutions these gains can easily be reduced or turned negative by a distorted incentive scheme for the acting individuals[17]. In the following analysis of the Chinese banking sector, these common and conflicting interests and the resulting informational and incentive problems in economic interaction will play an important part to determine the impact of specific institutions on banking sector soundness[18].

### 2.2. Banking Sector

This paper is mainly concerned with the systemic stability of the Chinese banking system in a narrow definition. The used definition for banks is thus in line with definitions found in Chinese laws relevant to this paper, e.g. the Commercial Bank Law. Here article two and three broadly define commercial banks as institutions which e.g. take deposits from the general public, grant loans and/or handle settlements. The focus of this paper is to analyze the impact of the institutional framework on Chinese banks as defined above. Hence, this

15 [North, 1990], p.36ff.

16 Under the - disputed - assumption of a rationally behaving agent the system of rules is adhered to since otherwise losses would incur; see[Voigt, 2002] , p.36 for a discussion of sanctioning mechanisms.

17 For more on organizations see for example [Homann, 2000], p.329ff.

18 In this context usually externalities and transaction costs play a defining role. Externalities are those changes in the utility situation of consumers or in the profit situation of producers that can be traced to legally permitted consumption and production activities of third parties and which induce changes in the commonly used resource basis. This explanation does not account for direct interdependencies in utility. For the utility function in the case of utility interdependence see [Martiensen, 2000], p.231ff.

definition of the banking system in the People's Republic of China includes - as per October 2005 - three policy banks, four state-owned commercial banks, 13 joint-stock commercial banks[19], 115 city commercial banks, 681 urban credit cooperatives, and more than 30,000 rural credit cooperatives as well as 54 rural commercial and cooperative banks. Included are also the 225 foreign bank branches[20]. With a focus on banks, less attention is given to the four asset management companies, 59 trust and investment companies, 74 finance companies, twelve financial leasing companies and the large number of postal savings institutions. Due to the risk of contagion and systemic banking crises further financial institutions, e.g. financial conglomerates of different origin are included in specific cases.

## 3. Literature and Data

Many studies have been published about the Chinese banking sector. Both the importance of China in the world economy and specific problems linked to business interest have induced intense research in this field. Academic scholars, rating agencies, investment banks and agencies like the Bank for International Settlement, the World Bank and the International Monetary Fund are only a few to mention. Mostly, these studies focus on a specific area of the Chinese banking sector, e.g. bank regulation, capital adequacy or market access for foreign banks. Especially the non-performing loan problems, its impact and possible solutions have been core to many analyses. A few examples can be mentioned: [Sergeant, 1999] on bank supervision, [Lardy, 1999] on bank restructuring, [Boyreau-Debray, 2005] on state dominance in China, [Green, 2004] on capital market development and enterprise reform, [Li, 2002] on court reforms, and [Lou, 2001] on non-performing loan work-out. Other studies are more concerned with the general impact of institutions on economic performance such as [Rodrik, 2002] or [Sachs, 2003] whereas others analyse banking sector crises in a general context, e.g. [Demirgüc-Kunt, 1999] or [Caprio, 2002]. An analytical application of instruments derived from new institutional economics to economic interaction can be found for example in [Homann, 2000].

So far, every study concerning the Chinese banking sector has had to cope with significant problems of data quality so that disclaimers or proxies for specific information are common. The reasons for this range from an insufficient statistical infrastructure and disclosure deficits on the micro level to political reluctance to increase transparency in a sensitive area such as

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19 The latest is the newly incorporated China Bohai Bank Co. Ltd.

20 By end-September 2005 the number of operational entities had increased to 232 which accounted for around two percent of the banking sector or around 660 billion RMB.

banking. The mere statistical problems include the diversity or the absence of statistical standards, poor valuation of asset quality and opaque off-balance sheet positions. Especially micro-level bank data suffers from insufficiencies in measurement - in particular over the business cycle[21] - so that aggregated data has to be interpreted with care. While data quality has gradually improved, many observers like rating agencies still have to publish educated guesses based on single bits of information obtained through informal channels. In fact, the chosen methodological approach in this paper is a function of these challenges. Consequently, the introduced macroprudential indicators act more as a vehicle to identify important institutions and to facilitate the following analysis. In this respect, this paper can contribute to clarify the impact of the institutional framework on the Chinese banking sector and to explain the reaction of specific macroprudential indicators to distortions in the incentive scheme.

## 4. Methodology and Structure

Economics is primarily concerned with human interaction and implied common and conflicting interests in the process of resource allocation. The approach of new institutional economists has made the process of resource allocation and the resulting informational and incentive problems its core and can thus be helpful to analyze the Chinese banking sector. The very successful neoclassical approach has for the most part neglected contractual elements which are an essential part of not only economic interaction but also the Chinese banking sector. In practice, both the institutional deficit of the Arrow-Debreu world and the shortfalls of the rational behaviour assumption in the homo oeconomicus model[22] seem problematic[23]. Hence, a behavioural model seems preferable which introduces e.g. intentional choice-based rational behaviour or bounded rationality, risk-aversion, time preferences in consumption, and

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[21] On the procyclicality of the financial system see [Borio, 2001].

[22] Bounded rationality as introduced by [Simon, 1955], p.99ff. is, however, more accepted among most institutionalists; see e.g. [Napel, 2003], p.183ff. For a detailed discussion of the homo oeconomicus model and its basic assumptions see for example [Göbel, 2002], p.23ff. On a “new theory of institutions” see [North, 1990], p.27.

[23] Disaster myopia and cognitive dissonances are only two documented examples of deviations from rationality in human decision-making. Disaster myopia describes the fact that humans tend to underestimate the probability of high-loss low-probability events. Cognitive biases describes the tendency to interpret gained information in a way which is in conformity with an existing opinion or mindset, see [Borio, 2001], p.9. The reason why the prevailing neoclassical theory has been only partly able to integrate the institutional framework into the models seems to be grounded in difficulties of measuring and modelling their impact on economic action. These difficulties in combination with the importance of institutions for economic performance have induced claims to replace the neoclassical economic theory with a new theory which accounts for institutions; see [North, 1990], p.61f.

opportunistic behaviour. While part of the new institutional economics still recurs to the homo oeconomicus model, these aforementioned elements which have a particularly strong influence on the institutional impact are better incorporated in the new institutional approach. Especially via common and conflicting interests and the resulting informational and incentive problems the costs and the structure of economic interaction are systematically influenced and potentially distorted[24]. To circumvent the aggregation problem of individual behaviour, a peer group analysis of the actions of market participants on different levels and of different origins can be conducted, e.g. by interpreting the institutional impact on different groups of banks[25]. The above mentioned problems with Chinese data quality would significantly reduce the validity of a quantitative neoclassical analysis of the Chinese banking sector. In addition, the complex environment of formal and informal institutions - which can easily result in opportunistic behaviour and thus distortions in resource allocation - support the application of institutional economic tools.

Without focusing on this aspect, high transaction costs in economies in transition with rapidly changing environments contribute to the importance of institutions which channel economic interaction of market participants[26]. This again leads directly to essential aspects of new institutional economics - agency and property rights issues and the analysis of contracts - which will be integrated in the analytical framework of this paper which also includes aspects like coordination and motivation problems which recur to asymmetric information in markets and distortions in the incentive scheme. In general, the agency approach focuses on repercussions of opportunistic behaviour due to informational asymmetry[27]. Property rights and their analysis is closely intertwined with the contractual analysis and is in some parts very similar to a positive approach to the agency theory which closes the circle[28]. The contractual analysis in the Chinese context is especially relevant with respect to relational contracts which have a high significance for economic interaction in China. Taken together, the contractual analysis, the property rights approach and the agency approach can identify informational and

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24 For similar approaches see e.g. [Zimmer, 1993], p.82f. or [Homann, 2000], p.1ff.

25 On a discussion whether the approaches of thee new institutional economics meet scientific criteria for methodologies to be applied in analyses of economic systems see [Zimmer, 1993], p.60ff.

26 On transaction costs see for example [Göbel, 2000], p.131ff.; [Martiensen, 2002], p.302ff.; [Richter, 2003], p.58ff.; [Frambach, 2002], p.47ff.; [Williamson, 1981]; [North, 1990], p.33ff.

27 On associated problems like infinite regress in optimization efforts see e.g. [Conlisk, 1996], p.678

28 With their broad and more dynamic approach these tools also facilitate the analysis of the law-in-action which is core to the incentive scheme. The advantage of the positive agency branch is that it can account for more complex issues such as informal institutions, multiple agents and principals, repeated games and bounded rationality; see [Feldmann, 1999], p.152. For a more detailed discussion of the application of the agency approach to company structures see [Fama, 1983].

incentive problems which significantly determine economic interaction within an existing institutional framework. Informational and incentive problems can be used as vehicles to analyze the impact of institutions on macroprudential indicators. As indicated, in this paper the latter are used to approximate the stability of the banking sector in the People's Republic of China. To obtain the necessary information, a significant number of interviews have been conducted with various market participants - ranging from the People's Bank of China and the China Banking Regulatory Commission (CBRC) to Chinese state-owned banks and foreign banks and international financial institutions.

The structure of this paper reflects the understanding of the importance of institutions for banking sector stability. The impact and the performance of the respective institutional arrangement are evaluated by testing implicit hypotheses[29]. It is assumed that the introduced macroprudential indicators need to be affected negatively by the specific institution to pose a threat to banking sector stability. Consequently, if one institution is found to harm one or several macroprudential indicators, a negative impact is expected to materialize. Cross-correlations between the tested institutions exist and are partly reflected by the choice of the institutions. This is due to the specific Chinese setting where these institutions themselves are either still highly regulated or disputed and thus can be expected to have a distorting impact on the incentive scheme of market participants. Other less significant cross-correlations are neglected.

This paper is structured in two main parts. The theoretical part II outlines the analytical framework. The integrated empirical and analytical part III applies this framework to the Chinese banking sector. Within the theoretical part II the first step consists of introducing the aforementioned macroprudential indicators[30]. These include both microprudential indicators like capital adequacy or asset quality and macroeconomic indicators like the interest rates and economic growth[31]. These indicators are based on a multitude of early warning systems and are assumed to be the core drivers for the banking sector distress or stability[32]. In a second

29 Positive impact-focused approaches are deductive and reality is grasped as a model under ceteris-paribus for other variables.

30 Generally, these indicators are used for stress tests. On stress tests using aggregated data for the financial sector see for example [Sahel, 2001], p. 179ff.

31 Recent empirical research has shown that some macroeconomic variables might actually be leading indicators predating banking crises; see [IMF, 2000], p.10.

32 These indicators partly recur to the *CAMELS* framework (applied e.g. in the US) which is often used to assess the stability of individual banks. *CAMELS* stands for the following categories of indicators: *C*apital adequacy, *A*sset quality, *M*anagement soundness, *E*arnings, *L*iquidity and *S*ensitivity to market risks. For more details in the *CAMELS* framework see for example [Thomson, 1991]. Together with the *SEER* (US) and the *PATROL* system (Italy) the *CAMELS* system are common systems applied by

step these indicators are attributed to four groups of specific institutions which are assumed to have a significant impact on them[33]. To facilitate the analysis it is further assumed that some institutions do not have a significant effect on particular macroprudential indicators. These links will not be tested in the institutional analysis.

In a third step the theoretical part will prepare the institutional impact analysis and its interpretation by introducing selected aspects of the new institutional theory. These tools will be applied in the four analytical sections of the integrated empirical and analytical part.

The empirical and analytical part III starts off with a short introductory section about relevant laws and regulation affecting the Chinese banking sector. Specific legal institutions are listed with the respective organizations which are mainly affected by them. For example the Central Bank Law is described to introduce the People's Bank of China - China's central bank - as a market participant in the Chinese banking sector. Another example is the Commercial Bank Law which affects a vast array of financial institutions. Here, the most important entities for banking sector stability are introduced in a peer group approach, e.g. state commercial banks or credit cooperatives. The second section of the empirical and analytical part consists of four sub-groupings of institutions followed by their respective institutional analysis. The four groups are: Formal market-regulating and formal market-stabilizing institutions as well as informal market-regulating and informal market-stabilizing institutions. Each group is followed by an institutional analysis which identifies common and conflicting interest of the market-participants and then derives informational and incentive problems from this setting. The goal is to identify distortions in the incentive scheme of market participants induced by the analyzed institution and to assess their impact on the attributed macroprudential indicators. The analysis will, hence, provide answers to the underlying question of how the existing institutional framework in the Chinese banking sector impacts on banking sector stability. The result of the analysis implies the answer to a hypothesis test, i.e. to justify its existence in the current form every institution should have a neutral or positive impact on the

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supervisors to measure more scientifically the default risk of banks, see [Borio, 2001], p.23. For a more detailed discussion, e.g. on the CAMEL, CAMELS and CAMELOT framework see [Yokoi-Arai, 2002], p.29ff. More sophisticated financial stability models or composite indices are hard to obtain and are rarely found. Many studies apply a combination of balance sheet analysis and add an interpretation of potentially relevant macroeconomic variables which have proven to relate to banking sector stability; see for example [Sahel, 2001], p.160ff. On the importance of a macroeconomic broadening of microprudential analysis see [Gonzales-Hermosillo, 1999].

33 For example [Rodrik, 2003] have used a more detailed but similar grouping of institutions. Aspects of political economy behind institutions cannot be captured in this paper. However, asymmetric information between regulators and their principals make these aspects complex. On incentive structures and regulation see also [Goodhart, 1998], e.g. p.44.

specific macroprudential indicator. In case of a negative impact the institution in the present form is rejected and would need to be altered.

# II Institutions and Distressed Banking Sectors

## 1. Standard Macroprudential Early Warning Systems for the Banking Sector

### 1.1. Aggregated Microprudential Indicators

#### 1.1.1. Capital Adequacy

International capital adequacy standards are often considered to be an integral part of microprudential indicators in early warning systems for the banking sector. They were particularly promoted by the Basel I capital accord which promulgates a capital adequacy ratio of eight percent and a core capital ratio of four percent. The aggregated risk-based capital adequacy ratios are designed to cushion risks e.g. from credit, interest rate, foreign exchange rate and off-balance-sheet risks and as such simply compares bank capital to risk-adjusted assets. For example a downwards trend in capital ratios is a - lagging - indicator for increased risk exposure, decreasing capital and possible adequacy requirement problems[34]. While being accepted as common best practice in many developed countries economists have long argued whether a capital adequacy ratio of eight percent has a sufficient protective effect and a significant indicative early warning function in emerging market economies like China[35]. Especially concentrated asset ownership and an insufficient legal and judicial framework and possibly increased risk-taking behaviour of banks may only partly be offset by capital standards[36]. Hence, factors like diffuse banking system structures and weak accounting standards can distort the analysis of the capital adequacy ratios. To be able to analyze capital adequacy ratios under these conditions this paper will pick as examples single institutions

[34] Capital includes tier 1 and tier 2 capital. The former comprises equity and disclosed reserves. The latter includes hidden reserves, revaluation reserves, general loan-loss reserves and general provisions. Subordinated debt can be included up to 25 percent of total capital. As a result banks can issue subordinated debt, i.e. subordinated debentures and notes, to meet the capital requirement set out for example in the Basel I accord; see “International Bank Capital Regulation: What Next?” (US Shadow Financial Regulatory Committee, Preliminary draft of 8 June 1999), p.33; quoted in [Yokoi-Arai, 2002], p.35. Subordinated debt can foster market discipline by integrating more interested parties. For more see [Calomiris, 1999].

[35] It is argued by some authors that accords such as Basel II set rules which promote the interests of powerful global players while depriving developing and emerging market banks of opportunities. It is also argued that capital market access for developing economies would be hampered due to rising costs - while also increasing the fluctuations and the volatility of external financing; see for example [Claessens, 2003].

[36] Compare [Rojas-Suarez, 2001A], p.36.

with systemic significance and certain relevant peer groups of the banking system - introduced as the market participating banks[37]. Since the results of this frequency distribution of capital ratios depends on the selection of the sample groups the most common classification will be followed, i.e. state-owned banks, joint-stock and city commercial banks, credit cooperatives and some potentially systemic non-bank financial institutions[38]. The above introduced assumption matrix illustrates the assumed institutional impact on macroprudential indicators or in this case on capital adequacy ratios. To facilitate reading these relations will not be included in the text. At the end of the paper a similar matrix will display the simplified results of the analysis. The links between institutions and macroprudential indicators and the respective transmission will be described in the analytical sections of part III.

### 1.1.2. Asset Quality

Asset quality describes the value of bank assets in the balance sheet. Several indicators are generally used to derive asset quality in its multiple dimensions. For instance the ratio of private sector loans and public sector loans over GDP can indicate structural problems in bank loan books[39]. The financial leverage as the ratio of bank assets to capital describes the risk appetite and positions of banks. As a simplified version of the reverse of the capital adequacy ratio it indicates the overall ability of banks to cope with financial shocks. It can be approximated by the ratio of loans to capital and signals potential financial problems when capital decreases or assets expand[40]. Ratios like non-performing loans to total assets or to net provisions as well as the ratio of provisions plus interest suspension on impaired loans in relation to total loans are generally valid indicators for the loan quality[41]. Asset quality can be

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37 The peer group analysis is the most common approach to assess risks in the financial sector, see e.g. the German BAKIS system; see [Borio, 2001], p.23ff.

38 A risk of cyclicality in the capital ratios is associated with the risk-sensitive approach of the capital accords; see [Haldane, 2001], p.148f.

39 [Laviziano, 2001], p.155ff. Compare ratios based on monetary aggregates.

40 If loan valuations are accurate; see [IMF, 2000], p.6.

41 Additionally, the quality of the borrowing party can be captured quantitatively, e.g. by debt-to-equity ratios benchmarked against figures like GDP growth. Here, a high corporate leverage may indicate excessive borrowing and overinvestment. Ratios like the interest coverage ratio may than grant additional insight in the financial conditions and the debt-servicing capacity of the corporate sector when aggregated data is available. Further the so-called Z-score for individual enterprises can be applied. This indicator comprises several financial indicators like asset quality, earnings and liquidity figures; see [Altman, 1968].

reduced by a vast array of factors of which customer defaults are only the most obvious[42]. Many of these factors are significant in the case of the Chinese banking sector. For example the quality of bank assets can be diminished by concentrated[43] or connected lending[44] and maturity or currency mismatches which reveal structural asset weaknesses. High ratios of loans outstanding to regional municipalities and state-owned enterprises may also signal political interference and increased systemic credit risks. Cyclical sensitivity of assets magnifies these structural weaknesses, e.g. when problems in the corporate sector spill over into the banking system in an economic downturn[45]. In general, impaired accounting and regulatory standards as well as an insufficient national accounting reduce the validity of asset quality indicators[46]. This applies e.g. for practices like netting against collateral, discretion in accounting or limited possibilities to provision against loan losses[47]. Considering the still high ratios of non-performing loans and the prevailing problems in bank risk-management in China asset quality is an essential indicator for the following analysis.

### 1.1.3. Management Soundness

Despite the fact that bank management and staff qualification are major contributors to bank performance and banking sector stability only few quantitative indicators are useful. The number of banks in the banking sector or the branch number of banks could be one approximation. However, the benchmarks themselves - e.g. numbers of other peer-group banks - can be distorted. General economic growth can be accompanied by financial sector expansion but rising numbers of bank licenses may also hint at unsound developments in management or regulation[48]. Similarly, overstaffing and high expense ratios - as expenses to

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42 The standard model of loan classification consists of five groups: pass or normal; special mention; substandard; doubtful; and loss. For more detailed discussion and the qualifying criteria see for example [Yokoi-Arai, 2002], p.38ff.

43 Concerning sectors, activities or currencies; see e.g. [Sahel, 2001], p.160.

44 Despite the usually low aggregated values for this indicator the phenomenon may be relevant in case of conglomerates or large businesses borrowing from a little number of systemic banks; see [IMF, 2000], p.6.

45 Sectors that show high volatilities are e.g. real estate, commodities and the export sector, [IMF, 2000], p.6. Private household indicators like the general quota of household indebtedness could be an indication of the financial state of the households even though the aggregated numbers might be distorted by distributional and other effects; [Sahel, 2001], p.168. Especially in trade-related industries a cyclical deterioration of bank assets can be amplified by foreign exchange risks.

46 Additionally, assessing risks from bank assets is complicated by off-balance sheet positions which may systematically distort a consolidated analysis, e.g. derivatives or guarantees.

47 [IMF, 2000], p.6

48 For example, unsound expansion, inefficient cost structures or political influence. Strategic branching decisions tend to affect mostly the market share and not the overall market size; compare [Kim, 2001].

total revenues - can be seen as a lack of managerial skills which can lead to deprived profitability. With still dominating state-owned banks movements of these indicators are important to assess the dynamic changes and reform efforts in the Chinese banking sector.

### 1.1.4. Profitability

An important component for banks to cope with asset quality problems is their ability to generate operating and other profit[49]. Common measures of profitability are net or gross profit over average total assets. In particular this is the return-on-assets[50]. Declining, this indicator might signal less profitable operations and increasing long-term insolvency risks. Similar tendencies may be reflected by a decline in the return-on-equity - defined as the ratio of net or gross profit over average capital[51]. The revenue structure of a bank can signal unhealthy concentrations. For example interest rate margins still play an dominant role in the Chinese banking sector so that income origination will be included in the analysis[52]. Competition can both narrow interest margins and can amplify problems of a small customer base or small balance sheet since economies of scale or scope cannot be realized[53]. Hence, this and other institutions will need to be analyzed with respect to their impact on bank profitability.

### 1.1.5. Liquidity

Financial distress in the banking sector is often associated with liquidity problems. The volume of central bank credits to the banking sector gives an indication of the degree to which banks recur to the lender of last resort. High volumes usually imply an impaired access to the domestic or international capital markets for the respective banks - or general malfunctions in the banking system[54]. More subtle indications of stress can be found in interbank rates, loan-

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49 Based on a proportional-hazard model [Molina, 2002] confirms that sound profits are vital for banks to avoid failure in a crisis.

50 Profit measures can differ if tax or extraordinary items are included. The profitability of the corporate sector is partly viewed as a leading indicator for financial sector distress. Even though this correlation might be distorted - e.g. by rational expectations in cyclical businesses - this indication may be more robust in bank-centered economies.

51 Since with an increase in bank capital the ratio can deteriorate, the interpretation has to be conducted on a case-by-case basis. A more sophisticated approach could differentiate between several categories of capital and different profit measures.

52 The overall margin situation also depends on the competitive situation; compare [Sahel, 2001], p.168.

53 With a high volume of non-performing assets bank profitability can be expected to be additionally suppressed. Cash flow, net income and finally the solvency deteriorates in the increasing volume of non-performing loans; see [IMF, 2000], p.6.

54 [IMF, 2000], p.8. Related to broad or narrow monetary aggregates these indicators may indicate liquidity problems or growing competition of non-banks.

to-deposit ratios and shifts in maturity structures. For example, information concerning the liquidity situation and the individual creditworthiness is transported in the interbank credit market rates[55]. Significant differences in interbank interest rates, a strongly fragmented market with different groups of banks or the reluctance of some banks to grant credit to others might indicate upcoming financial distress. Liquidity is in many cases correlated to the volume of deposits with private deposits usually decreasing well before banking crises[56]. The general ability of the banking system to raise deposits and to transform them into credit is reflected in the loans-to-deposits ratio. A low ratio could indicate an insufficient intermediary function of the banking system with possible negative repercussions for economic growth but will have less negative consequences for bank liquidity. A high ratio may indicate higher risks and a reduced capacity of the banking sector to offset losses - or an insufficient capacity to generate deposits. This could result from a generally low propensity to save but also from a lack of trust in the banking system. However, investment alternatives for depositors are important to consider when assessing the impact of a specific institution on liquidity[57]. This is even more relevant in transition markets with a partly underdeveloped financial infrastructure like China.

### 1.1.6. Spreads and Sensitivity to Market Risk

The most eminent and common banking risk is the interest rate risk which can result from both the banking book and the trading book. Usually, the risk exposure is determined by the proportion of profits to interest rate volatility so that a bank generating profits mainly from commissions will be less exposed[58]. Risks related to foreign exchange positions can be signalled by open and unhedged foreign exchange positions. These have proven to become dangerous in the case of sudden reversals in capital flows which can affect the financial position of the banking sector immediately via shifts in the exchange rate. Additional price risks can be hidden in the trading positions of banks, e.g. for equities, real estate or

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55 On interbank lending and systemic risk see [Rochet, 1996].

56 Describing the aftermaths of banking crises some authors have found that contemporary banking crises do not show a pattern of declining deposits. Additionally, credit would not fall relative to the output. However, the growth rates of loans and deposits would decline significantly. The following economic recovery would not be accompanied by credit growth since banks then would reallocate resources away from loans; see for example [Demirgüc-Kunt, 2000] and [Brüggemann, 2002], p.8 and p.25.

57 The case of Argentina has shown that bank customers in some situations are deprived of investment choices.

58 [BIS, 2004] describes different procedures to report interest rate risks. Either they are aggregated over time bands reflecting the next re-pricing or they are subject to a duration analysis which weighs the durations of the different financial instruments.

commodities. The extent to which this is possible depends on the regulatory framework. However, price risks impact on financial stability also via the credit portfolio so that a high leverage or price volatility can magnify loan book risks[59]. Indicators covering these risks could refer to the absolute size of investments in certain equity classes or the relative size of these investments in relation to other balance sheet indicators[60]. Market prices of financial instruments, e.g. bank stock prices and yield spreads of financial instruments issued by banks could also be used as an indicator of a deteriorating standing of specific banks or the banking sector in general[61]. Bond issuances and public offerings in the developing capital market in China give a first indication of the market perception of the underlying risks and opportunities and indicate an existing impact of capital markets on bank profitability[62]. Further institutions that are expected to impact on the profit situation in the Chinese banking sector can be derived from the above mentioned assumption matrix.

## 1.2. Macroeconomic Indicators

### 1.2.1. Fiscal Policy

In economies with a high degree of state activity like in China macroeconomic indicators such as fiscal, monetary and interest rate policies have an increased importance for banking sector stability. Important indicators describing current fiscal policies are obviously the budget deficit, government spending and developments in tax revenues. For example fiscal deficits reflect both the spending behaviour as well as the efficiency of the tax system which are core issues in economies in transition. The decentralization of the tax system and a stronger competition frequently reduces monopoly profits of state-owned enterprises which are better to tax[63]. The often observed result of substantial and partly discretionary state subsidies to

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59 [IMF, 2000], p.8

60 Commodity risks can also be measured in the maturity ladder approach, see [BIS, 2005]. If available, bid-ask spreads in secondary markets and turnover figures could be used as approximations for the depth, functioning and liquidity situation of the banking sector. In the sovereign market indicators - like yield spreads for sovereign bonds and ratings for governments - risks are covered which are associated with the financial and economic position of a country, including future prospects; see [IMF, 2000], p.8 and p.10.

61 Excess yields relative to average market yields in bond or debenture issues can as well signal severe problems, unsustainable liabilities and a deteriorating financial situation in the banking sector.

62 In this context implicit or explicit guarantees will play an important role - even if they are only assumed by some market participants. These can further distort price structures, risk-assessments and ratings as well as yields which will then not reflect the actual financial situation of the banking sector or specific banks; see [IMF, 2000], p.9.

63 For stylized facts see e.g. [MacKinnon, 1992] and [Raiser, 1992], p.6ff. A general introduction into stylized facts of the business cycle can be found in [Burda, 1997], p.355ff.

state-owned enterprises is a significant contributor to both fiscal deficits and problems in the banking sector in transition economies[64]. These policies create soft budget constraints[65] which can induce excessive investment and as a result a large stack of non-performing bank loans[66]. Due to these distortions in resource allocation and the poor performance of state-owned banks banking crises in transition economies are more likely with larger impacts[67]. While high recapitalization transfers to the banking sector are signs of ongoing distress the budget deficit as such is a rather unclear leading indicator for banking sector distress[68]. Nevertheless, the fiscal capacity to recapitalize banks or to issue guarantees has an important impact on bank stability as will be discussed in the empirical and analytical part. Since government recourse to the banking system to relax fiscal constraints has been a common practice in China the current fiscal policy will also be included in the analysis. For instance guanxi-connections or capital markets will be analyzed with respect to their impact on indirect fiscal policy and government involvement indicators like stocks of non-performing assets and loan concentration in the state-owned enterprise sector[69].

### 1.2.2. Monetary Policy

#### 1.2.2.1 Interest Rates

Depending on the interest rate regime the signalling power of nominal and real interest rates includes areas like liquidity, profitability and risk-proneness of the banking sector. Typically,

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64 For example in some cases like Russia selective tax deferment was possibly used to avoid bankruptcies. This has not been observed in all economies in transition

65 [Kornai, 1980] introduced this concept in the context of capitalist and socialist firms. The distortion of the individual or collective budget constraints can have multiple sources. First, prices and quantities are state-administered. Second, domestic concentration and protection against competition leave prices with an upward flexibility. Third, subsidies and other outside finance can be obtained by the company. Fourth, repayment of credit is not enforced. Fifth, the tax system is discretionary and distorts the allocation of resources by indirectly subsidizing companies. As a result the efficiency of capital allocation is reduced; see [Raiser, 1992], p.22ff. and [Kornai, 1980], p.306.

66 On banking crises in the bank-centered economies in Asia see also [Hawkins, 2001], p.7.

67 Compare [Hawkins, 2001], p.9ff.In general, the fiscal position in times of banking distress usually depends on the government approach. Accommodating approaches are often associated with liberal liquidity support, guarantees to depositors and creditors of banks and with a temporary more lenient supervisory approach; [Honohan, 2002], p.15. On more details concerning fiscal costs of banking crises see [Honohan, 2002], p.16ff. For a list of systemic and borderline banking crises see [Caprio, 2002], p.31ff.

68 [Brüggemann, 2002], p.25. Further, [Abderrezak, 2000] finds that the budget deficit is an important determinant of the duration of a banking crisis.

69 Since usually governments in emerging markets tend to invest in specific sectors which are considered being strategically important, excess investment and asset value inflation can be a serious consequence to the detriment of the banking sector; see [Olson, 2000], p.263.

widened interest rate spreads indicate an increased risk for banking crisis since banks normally try to account for higher credit risk by raising interest rates. With increasing interest rates and refinancing costs bank profitability as well as the debt servicing capacity of borrowers may suffer[70]. Specific problems occur when for example low or negative real interest rates occur during economic booms since this can trigger excessive risk-taking by borrowers[71]. Persisting negative real interest rates can be a sign of government interference with the banking system, e.g. when nominal interest rates are fixed. In case of regulation of deposit and credit interest rates, bank profitability can also suffer from negative interest rate margins - which severely undermines bank stability[72]. Hence, the common signalling function of interest rates can be strongly diminished by regulation[73]. Spreads between foreign and domestic real interest rates then can be taken as indicators for banking sector distress if the accounts are sufficiently open. This spread usually widens prior to banking crises due to higher risk premiums, attempts of domestic banks to recapitalize via higher interest rates[74] and central bank interest rate increases to avoid capital outflows [75]. However, due to the specific Chinese setting these mechanisms are only partly observable so that either the existing market-based interest rates in the interbank markets or proxies need to be consulted. The impact of the Chinese institutional setting on interest rates is thus cross-related with the interest rate regime which is listed as an institutional driver in this paper. But also other influencing institutions like capital markets and the exchange rate regime are analyzed in their impact on interest rates and interest rate structures in China.

#### 1.2.2.2 Exchange Rate

Especially third generation models of currency crises stress the links between banking crises and currency and financial crises[76]. In these models - as in new institutional economics - the

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70 [Brüggemann, 2002], p.26

71 The incentive to borrow is artificially enlarged even when marginal returns on investments are close to zero; see [IMF, 2000], p.11.

72 However, interest rate volatility is also detrimental to the stability of the financial system since banks or their customers are subject to increased interest rate risks. When adequate risk-management tools are missing this may lead to a deteriorating bank profitability through structural mismatches; see [IMF, 2000], p.11.

73 On the role of the interest rate see [Tarashev, 2003].

74 [Agrawal, 2004] states that with a growing investment rate real interest rates would increase and that a strong correlation exists between high real interest rates and the occurrence of a banking crisis.

75 The reference interest rate could be a seven year US government bond. US CPI could be taken as a deflator. The same is possible for the Euro area; see [Brüggemann, 2002], p.26.

76 On the relation between currency and banking crises see e.g. [Edwards, 2002]. [Brüggemann, 2002], p.16, seems to assume that banking crises prelude currency and financial crises. Contrary to this, the

institutional structures and the resulting incentive schemes in the banking sector are considered to be crucial for banking sector and financial stability[77]. A common indicator signalling banking and financial distress is for example the relation of broad money (M2) over foreign reserves which often shows a significant increase before banking and currency crises[78]. Another stylized fact of banking and currency crisis is the downwards trend deviation of the real exchange rate, an overvaluation and decreasing foreign currency reserves due to central bank interventions[79]. However, under fixed and strictly managed currency regimes these quantitative indicators have less validity and other risks gain importance[80]. For example significant foreign capital inflows then have to be converted by the central bank which affects the monetary policy and can reinforce inflationary pressure, asset and lending momentum. Hence, these indicators can be used to asses the impact of institutions like competition and capital markets which are listed in the assumption matrix above.

### 1.2.3. Balance of Payments

The balance of payments can signal banking sector distress in different ways and in different points in time. For example foreign currency reserves drop before banking and currency crises due to interventions of the central bank[81]. In some cases bail-out programs for unviable or troubled banks based on the central bank's foreign reserves might also be a reason for this

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IMF model to forecast currency crises does not take account of banking variables since those would only succeed currency crises. For more information on the probit-model of the IMF, the DCSD (developing countries studies division) model, see [Berg, 1999]. On a signal-extraction approach to currency crises see [Kaminsky, 1999], [Kaminsky, Reinhart, 1999A] and [Kaminsky, Reinhart, 1999B]. See [Eichengreen, 1996] for one of the first inter-country probit models (regression).

77 Compare for example [Brüggemann, 2002], p.16. For a discussion of links to financial system crises, credit crunches, bank runs and finally bank failures see e.g. Dornbusch (2001).

78 [Brüggemann, 2002], p.25. Increasing broad money supply can also be a symptom of financial market liberalization. On the Monetarist view on banking and financial crises see for example [Timmermans, 2001], p.120.

79 Compare for example [Brüggemann, 2002], p.25.

80 Concerning the exchange rate regime empirical evidence suggests that fix exchange rates can reduce the likelihood of banking crises in developing and emerging countries. However, if a banking and financial crisis occurs under fixed regimes the associated costs in terms of real output tend to be higher. The duration seems to be uncorrelated to the exchange rate regime. For a more detailed discussion on the influence of the exchange rate regime on banking crises see [Martinez-Peria, 1999]. Artificially fixed or pegged exchange rates have proven unsustainable in many cases like Russia, Latin America and East Asia so that many authors claim that developing and transition economies cannot pursue exchange rate policies that do not reflect their monetary and fiscal policy.

81 Not so relevant for China the volume of short-term foreign debt tends to increase shortly prior and during crises since the risk-premiums for long-term financing are high. The country and its economic actors have increasing problems to revolve and restructure long-term credit and to generate new medium or long-term liquidity from the international capital markets; see [Brüggemann, 2002], p.26.

development. Generally, low currency reserves are considered to be problematic for financial stability and a low ratio of reserves over short-term liabilities is interpreted as an indicator for high vulnerability[82]. However, a large volume of foreign reserves could also indicate structural problems in the balance of payments, e.g. an undervalued currency or overshooting foreign investment. Capital flows as such and specifically their composition and maturity may also imply risks for the banking sector. Ratios of portfolio and foreign direct investment over total investment, and official versus private investments are common indicators in this field[83]. According to these indicators the vulnerability of the banking system is high when either the proportion of investments to capital inflows is low or when the marginal productivity and the marginal returns on investment are significantly diminished[84]. The underlying drivers of current account problems are thus potentially reinforced by a reversal of capital inflows. With its high FDI volume and large foreign reserves these indicators are possibly influenced by institutions like competition, the interest and exchange rate regime and even governance aspects.

### 1.2.4. Lending and Asset Prices

A common indicator for upcoming banking sector distress has been the relation between domestic credits granted and the gross domestic product. This indicator usually increases significantly before banking crises[85] and is often associated with financial service liberalization and other factors such as implicit state guarantees, e.g. for state-owned enterprises, which tend to inflate the credit portfolio of banks[86]. In this case either a decreasing GDP or an increasing bank loan portfolio indicates economic and financial problems and decreasing returns for investments and banks. In general, arrears and non-performing assets in the economy, if not disguised by evergreening and window dressing, can be an indicator for repayment problems of the government or public or private enterprises. This may create liquidity and solvency problems in the banking sector. Consumer lending, mortgage lending and foreign currency lending have often also preceded financial crises in

82 The ratio can be constructed in different ways. Reserves can cover the central bank and the financial system. Liabilities in domestic and foreign denominations both public and private can be included in the ratio; see [IMF, 2000], p.10.

83 In this context central banks and governments are mostly worried about speculative capital flows.

84 Compare [IMF, 2000], p.10.

85 The size of the credit boom seems to affect the duration of the crisis; see [Martinez-Peria, 1999].

86 [Brüggemann, 2002], p.25 On patterns of credit growth in banking crises see for example [Hutchinson, 1999].

emerging markets[87]. Even though the relevance of lending and asset price booms for banking sector stability is disputed[88] the following analysis will give attention to asset price developments[89], non-performing loans and new lending induced by the analyzed institutions.

### 1.2.5. Economic Growth

Especially banking sectors in transition economies are vulnerable crises due to continued state activity in the enterprise and banking sector and reluctant privatization efforts[90]. While in most transition cases a declining gross domestic product was observed due to an inward shift of the demand function the Chinese case is certainly distinct[91]. Since the forced substitution of central command economies[92] was abandoned gradually in China the negative impact of previous excess demand in certain areas was diminished. Nevertheless, the analysis of growth components and drivers can help to identify risks for banks stability - especially when compared with bank loan concentration. And in case of large volumes of new lending a decline in economic growth can significantly harm banks through reduced corporate profitability and debt-servicing capacities[93]. Hence, the impact of institutions like fiscal policy, interest rates and governance on economic growth will be discussed.

### 1.2.6. Contagion

In general, contagion effects can occur on the domestic level and on the international level. For example bilateral exposures in interbank markets imply the risk of domino effects in case

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87 [IMF, 2000] , p.11

88 On the relevance of lending booms for the banking sector see [Gourinchas, 2001]. Since asset prices can also be driven by expansionary monetary policy and a high influx of foreign capital this pattern could well apply to attractive emerging markets. On boom-and-bust patterns in asset prices see [Hutchinson, 1999]. Real asset prices, e.g. equity and real estate, are usually depressed at the actual outbreak of a banking crisis after having plummeted from a peak. This is not necessarily the case in countries in transformation since prices might not have increased significantly before due to longer-term financial distress or structural problems. For this argument and a more detailed analysis of the movements of asset prices in banking crises see [Claessens, 2002], p.1 and p.3. For example during the banking crises in South Korea (1998) and in Malaysia (1998) real asset prices decreased by 45.9 per cent and 79.9 per cent respectively. Asset prices in Sweden (1991) decreased only by 6.8 per cent which can perhaps be traced to the lack of overheating prior to the banking crisis.

89 [Nelson, 2001], p.367

90 Empirically, big bang transformations can generate higher growth rates due to increasing scale effects of institutions. Relatively to gradual transformations the basis is, however, lower; see [Zhong, 2002], p.277f. Compare also [Raiser, 1992], p.9.

91 For stylized facts see for example [Raiser, 1992], p.10f.

92 For more details on excess demand and capacity adjustments see for example [Kornai, 1980]. For early insights in the output declines beginning of the 1990ies in Poland see [Calvo, 1992].

93 On the Keynesian approach concerning banking and financial crises see [Timmermans, 2001], p.120.

of a counterparty failure. Since the interbank market reallocates liquidity without creating it risks could theoretically spread through this market. Additionally, credit concentration can prepare the ground for contagion as can trade spill-over and financial market correlations [94]. Often capital market flows, commercial bank connections for trade financing and correlations in stock markets and exchange and interest rates are interpreted as indicators for contagion risks[95]. However, there hardly seems to exist empirical evidence of contagion in banking crises leading to the failure of solvent banks[96] an increased general vulnerability of the banking sector can be assumed due to its various domestic and international exposures[97]. Institutions like deposit insurance schemes or government and central bank credibility have obviously reduced the risks of contagion[98] but common characteristics of banking systems which are contagion-prone have not yet evolved[99]. In any case, trade issues like decreasing export competitiveness, currency appreciation in export-focused countries and insufficient legal system and governance structures can foster the risk of contagion and will be included in the impact analysis.

## 2. Integration of Macroprudential Indicators into an Institutional Framework

In emerging markets the rapid changes of the institutional framework forces agents to adapt to ever new incentive schemes in fast succession. Distortions in the underlying institutional setting and inconsistencies between different institutions can easily lead to misallocations of capital and changing risk-taking patterns. The above introduced macroprudential indicators were derived from different early-warning systems for the banking sector. While some of the institutions were already mentioned above the following section will provide a more detailed introduction. An initial indication of how the respective institution channels economic interaction or affect the incentive scheme of market participants will be given. As a result the macroprudential indicators will be embedded in the relevant institutional framework for the

94 Compare [Upper, 2001], p.211ff.

95 On financial contagion see [IMF, 1999], p.66.

96 [Kaufman, 1994], p.143

97 Spill-over effects are more of a long-term character and capitalize on trade relations, e.g. via exchange rates and current account imbalances. Contrary to this, contagion effects are short-term in nature and occur independent of the state of macroeconomic fundamentals. Domino effects describe the fact when investors with draw from subjectively similar countries and investments when a crisis occurs in one of these countries. The ECB's Banking Supervision Committee (BSC) categorized indicators in systemic indicators, macroeconomic factors and contagion factors with the ultimate target variable "solvency of the banking system", see [IMF, 2000], p.18.

98 See Japan and the Nippon Credit Bank (1997) and the US Continental Illinois (1984). For more details see [Molyneux, 1999], p.5 and p.7ff.

99 See for example [Dale, 1995].

Chinese banking sector. The following third section will then add the instruments derived from new institutional economics to analyze common and conflicting interests and, hence, the impact of these institutions on the indicators.

## 2.1. Formal Market-Regulating Institutions

### 2.1.1. Formal Preventive Measures

#### 2.1.1.1 Competition

Competition in the banking sector depends on common factors like market structure, conduct and the performance of the market participants. Especially in highly sensitive sectors like banking, regulation plays an important role to define the parameters of competition. Market access and exit regulation in the Chinese context will be of particular interest since an increased competition also via market entry of foreign banks has been a means to support reforms in the incumbent state-owned banks[100]. New competitive players in the market with possibly different business strategies can help to overcome distorted incentive schemes and can be a source of stability in times of distress since they tend to have higher financial resources and support the influx of fresh capital. Know-how concerning the banking business, including risk management and IT infrastructure is usually transferred to subsidiaries. These changes in the market structure automatically lead to a more competitive market conduct of the players and thus a possible market concentration and the crowding-out of domestic incumbent banks[101]. Asymmetric information between market participants might induce foreign banks to service primarily large corporate customers with lower associated risks. Generally local banks seem to grant larger and longer loans at lower interest rates which are additionally less collateralized on the average[102]. This indicates possible shifts in market shares and business strategies since local banks might be more efficient in overcoming agency problems and asymmetric information. It also includes the risk of adverse selection among bank customers which can induce the regulator to limit market access or to restrict business activities. These possible negative repercussions of an increased competition are accompanied by significant positive effects. The latter include the support of transparency, accountability,

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100 Consideration has to be given to the fact that limited market access may also imply distorted incentives for market exits which would keep unviable banks artificially in the market. The “disincentive of a bankruptcy” and sophisticated risk-management policies may get lost in such a system of reduced decentralized competition. This leads in the direction of “too-big-to-fail” banks; compare [Richter, 1991], p.58.

101 Since a guarantee by the parent company cannot be taken for granted; see [Cárdenas, 2003], p.23.

102 [Nini, 2004], p.11ff. and further, research suggests that small and medium enterprises do not suffer from credit shortage or diminished access to the credit market due to foreign bank entry.

private control mechanisms and thus more market discipline[103]. This can foster risk management and more efficient financial intermediation[104]. The results are for example increased management soundness and better bank asset quality. These are only few of the macroprudential indicators which are affected by the changing incentives for market participants through competition. While the more specific discussion about the impact of competition in the Chinese banking sector is conducted in the empirical and analytical part III the above assumption matrix also illustrates which indicators are affected the competitive environment.

#### 2.1.1.2 State Ownership

In command economies close relations between the state and the banking sector are vital for the survival of the system. The result can be distorted incentives leading to soft budget constraints, government recourse to the banking sector, reduced financial stability and higher risks of bank distress. This effect is magnified when core industries like energy, manufacturing and real estate are influenced significantly by government activity[105]. In this case distorted incentives can lead to excessive lending and credit concentration in the public or semi-public sector[106] which reduces the possibility for banks to transform risks[107]. Since credit concentration especially in the state-owned enterprise sector tends to increase the amount of non-performing loans - despite the fact that companies seek government protection[108] - banking sector profitability can suffer significantly while the risks of corruption and rent-seeking increase[109].

The impact of government ownership on the incentives of a regionally broad provision of banking services and the incentives to build-up a comprehensive private monitoring system

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103 Compare for example [Cárdenas, 2003], p.23.

104 State bank systems seem not to profit from similar positive effects on growth; see [Richter, 1991], p.56. Generally, competition, together with banking stability and monetary policy are often used to justify banking sector regulation; see [Baltensperger, 1987], p.68f.

105 Olson (2000), p.264

106 Even worse, high initial levels of government ownership in the banking sector support the tendency towards less developed and less efficient financial markets. On the trade-offs between private and publicly traded companies and the compatibility of corporate control and secondary market liquidity see [Bolton, 1998] and [Milne, 1998].

107 This is while companies are deprived of alternative and more sophisticated sources of financing.

108 For example in form of subsidies, guarantees, monopoly privileges or protection from foreign and domestic competitors.

109 Views claiming that government ownership in banks helps to overcome capital market failure by internalizing externalities and to identify investment projects of strategic importance seem at least

will have to be analyzed in the Chinese context[110]. These possible results indicate the fundamental weakness, i.e. a political resource allocation with all its consequences for the economic system[111]. Its impact on microprudential indicators ranges from asset quality over management soundness to risk positions and profitability. In this context it will have to be examined in the positive institutional analysis in how far credit policies of state-owned banks are actually flattened over the business cycle. On the macroprudential side the effect on contagion and growth as well as the fiscal position could be relevant. The property rights structure in the banking sector can thus help to identify the impact of government ownership on economic interactions and, hence, on the macroprudential indicators[112].

#### 2.1.1.3 Accounting and Disclosure Requirements

Transparency is core for the understanding of the market rules and the solution of both informational and incentive problems in economic interaction. The institutional framework concerning accounting and disclosure has to ensure the necessary degree of transparency and information for domestic and international investors and even actors like the government[113]. Disclosure requirements enhance the effectiveness of market discipline[114] and generate trust by providing the possibility to exchange information. For example, real-time and accurate information about non-performing loans and provisions are crucial determinants for the incentive schemes. Bank management may be induced to avoid additional or excessive risks in their loan books[115] and depositors may also want to choose their contracting partner and possible alternative investments carefully. Accepted accounting standards - which are actually adhered to - can create an incentive to invest since risk assessments are made possible. Similarly, risk-pricing is facilitated since default probabilities can be calculated better[116] even though in transition economies the introduction of stricter accounting and disclosure requirements can reveal technical insolvencies. Hence, the incentive for supervisors to induce banks to immediately implement stricter provisions is systemically reduced in these

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questionable with this background. This view, deducted from a more historic perspective, is promoted for example by [Gerashchenko, 1962]; quoted also in quoted in [Barth, 2002], p.10.

110 Private monitoring can be crowded out by government ownership; see [Barth, 2002], p.27.

111 Compare [Caprio, 1999], p.49.

112 For a more detailed discussion of government ownership see [Speyer, 2005].

113 See [Norton, 1999], p.306.

114 Empirical studies have shown this for the US; see [Jordan, 1999].

115 In more developed banking systems other systemic risks, e.g. from off-balance sheet positions, gain importance. If banks are allowed or encouraged to roll-over existing non-performing loans - so-called evergreening - a realistic assessment of the loan books is problematic.

116 [Norton, 1999], p.305

economies. However, with strong implications for macroprudential indicators like capital adequacy ratios, asset quality, management soundness and the risk of contagion the following analysis will investigate public and individual channels to disclose or receive information about the corporate and the banking sector. So the impact of the arrangements in place, especially accounting standards, loan classification, loan depreciation and provisioning standards as well as their implementation will be core to the analysis of the peer-group loan books and the underlying incentive structure of the banking sector[117]. In addition to this other sections, e.g. the section about guanxi-connections will explore alternative channels to obtain financial information in China which have evolved over time.

#### 2.1.1.4 Capital Adequacy and Liquidity Requirements

The main function of capital adequacy standards is to cushion the bank against losses and failure and to hold owners responsible for losses before depositors lose their money [118]. However, the capital ratio with its multiple drivers - returns on assets, asset growth, public offerings, etc. - can change without reflecting actual changes of the financial soundness[119]. Despite this ongoing discussion about the importance of specific capital adequacy ratios and their signalling power especially in emerging markets[120] capital adequacy requirements play a crucial role in aligning interests of bank owners, depositors and other creditors[121]. This has direct implications for aspects like risk-taking behaviour, control mechanisms and accountability[122]. In the case that the alignment of interest and trust among market participants

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117 Further to capital requirements and better supervisory practices this is one of the three pillars of the new Basel II accord.

118 [Benston, 1992], p.54ff. and [Yokoi-Arai, 2002], p.33. The former provides a further justification for capital adequacy standards.

119 So while the capital requirement of the regulators are met the bank can proceed to generate a lending boom even in the absence of functioning capital and equity markets; see [Goodhart, 1998], p.108. Also cross-relations between banking, securities and insurance business complicate the definition of adequate risk weights. The downside of capital requirements might include a tendency to create cyclicality triggered by internal credit risk ratings of customers which could amplify business cycles. This recurs to evidence from emerging markets; see [Segoviano, 2002], p.2 and p.18f.

120 The reduced signalling power is mostly due to significant deficiencies in regulation and accounting. Further, the lack of liquid markets for bank shares, subordinated debt and other bank liabilities and assets prevents verifying the value of a bank as opposed to the accounted book value; see [Rojas-Suarez, 2001], p.1. Additionally, accounting systems, concentrated ownership, little competition and lack of rule of law can be mentioned; see [Rojas-Suarez, 2001A], p.36. Since emerging markets are usually more crisis-prone than developed economies some authors suggest capital adequacy ratios around ten percent to perform the same buffer function; see e.g. [Goodhart, 1998], p.106.

121 See [Berger, 1995], p.257.

122 [Blum, 1999] argues that even a higher risk-taking might result.

is reflected in lower ratios of non-performing loans, i.e. better asset quality[123] capital adequacy ratios contribute to long-term stability of the banking sector. Hence, higher “capital at risk” can foster increased management soundness due to reduced incentives for banks to take excessive risks and higher incentives for managerial control - also in legally or politically distorted environments[124]. Considering the ambiguous opinions on capital adequacy ratios their impact on all microprudential indicators but also on macroeconomic indicators like lending and asset price development are interesting in the Chinese context. This will also give an impression about the degree to which the regulating agencies can actually influence market interaction via their institutional guidelines. Accordingly, the analysis of the impact of government agency credibility reflects these insights from the other side.

#### 2.1.1.5 Insolvency Procedures

The insolvency laws for corporate and bank failures are usually considered a key factor to preserve banking sector stability[125]. The incentive scheme set out ex-ante by the relevant procedures channel and constrain the behaviour of the market participants and either reduce or increase the economic costs associated with potential or actual bank failure. By promulgating clear and explicit rules in coherence[126] with other policies insolvency procedures may help to reduce uncertainty in the banking sector[127]. Together with a possible social safety net the insolvency regime is essential in facilitating a market exit option for unviable banks and companies which is core to reduce moral hazard problems. With provisions like automatic stay, executory contracts and the prohibition of prior transactions insolvency procedures influence the predictability of the outcome of bank failures and thus influence the incentives for market players[128]. Since many cases of individual bank failure result from long-term non-compliance with prudential and regulatory measures the disincentive of bankruptcy is a credible threat for bank management and complements supervisory efforts. Additionally, owners and other interested parties will be induced to build private monitoring mechanisms to

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123 Most interesting this does not reduce the risk of a banking crisis; [Barth, 2002], p.22 and p.31.

124 In periods of economic transformation capital standards could thus be surrogates for state guarantees; see [Barth, 2002], p.6.

125 Bank insolvency as either or both a negative net worth (balance sheet insolvency) and/or an actual or imminent default on liabilities (equitable insolvency).

126 The necessity for coherence also applies to the relation between supervisors, receivers and conservators who are in charge in case of insolvencies.

127 [Norton, 1999], p.303. Especially in transition economies it can have a signalling power to introduce a separate bank insolvency law and the expected damage in case of insolvency might determine this decision. Determinants here could be the existence of deposit insurance schemes or state guarantees.

128 See for example [Schiffman, 1999], p.82.

secure a sustainable and profitable business conduct. Since insolvency procedures often need to be initiated by the regulator the incentive scheme of the government agencies and possible discretion will have to be considered in the following analysis[129]. Especially policy issues promote distortions in the incentive scheme of other market participants and prevent the implementation of the wisdom that "the optimal number of bank failures is not zero" [130]. In this context also the application of lenient or strict insolvency procedures towards shareholders and depositors need to be examined[131]. The underlying ownership structures of banks may be an important variable which may create a systematic bias towards one specific approach of government agencies in China. The threat implied in the demanding provisions and thus the ex-ante incentive scheme set out by bank insolvency law is underlined by the fact that in practice many bank failures are resolved outside this formal framework. However, in countries like China this may also be due to other reasons and is up for further investigation. Depending on the approach chosen by government agencies issues like reduced predictability and moral hazard can gain importance[132]. In the case of a lenient resolution the long-term incentive scheme may then induce further lax lending and lenient business policies in the banking sector with negative consequences for the tax payer[133]. Hence, both the formal insolvency procedures and their actual implementation need to be included in the analysis. Especially the impact on asset quality, management soundness, liquidity and macroeconomic indicators like economic growth and the risk of contagion may be interesting to observe.

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129 [Schiffman, 1999], p.95

130 As stated by Paul Volcker, former Chair of the US Federal Reserve Bank. Otherwise see [Claessens, 2002], p.2.

131 The lenient approach would perhaps favour reorganizations and recapitalizations while operations continue, e.g. under the guidance of a conservator. In transition periods with underdeveloped market mechanisms the incentives for a lenient approach may prevail so that the firmness of the promulgated rules of the insolvency procedures have to be scanned e.g. for time inconsistent solutions and their impact on economic interaction. Limiting the time for reorganization or admitting foreign competition could offset the implied moral hazard issues. One year is sometimes mentioned in this context; see [Schiffman, 1999], p.90f. and p.98f.

132 It should also be kept in mind that in economies in transition bank assets tend to be even less liquid than in markets where primary and secondary financial markets are developed. Liquidation might thus lead to higher costs due to the discrepancy of book and liquidation values. Spill-over or domino effects might also be more costly to prevent in this environment; see [Schiffman, 1999], p.82f.

133 [Olson, 1999], p.161

### 2.1.2. Formal Protective Measures

#### 2.1.2.1 Lender of Last Resort

Designed for overcoming liquidity crises the lender of last resort is an inappropriate means to tackle solvency issues in times of financial distress. However, in many cases rescue packages for troubled banks exceed the mere lender of last resort assistance the original focus has been broadened to a certain degree. Additional problems arise in the case of global banking institutions which are in need of a national domestic lender of last resort[134]. Hence, the assumption that national central banks or other agencies will bail-out distressed banks could be misleading in the further integrating and dynamically changing global financial markets. However, especially in the Chinese case with just recently internationalizing markets banks still tend to act primarily in the domestic market.

Systemic banks usually do not collapse spontaneously but show problems over a certain period in advance. It may result an expensively distorted incentive scheme when these problems are insured via a lender of last resort function at the central bank[135]. The implications of such regimes on micro indicators are various due to moral hazard problems. The extent of these negative repercussions, e.g. on management, liquidity, risk positions, asset quality - but also on contagion and the fiscal position - strongly depends on whether the lender of last resort focuses on liquidity crises or is - politically or otherwise - induced to cover solvency crises.

#### 2.1.2.2 Government Guarantees and Deposit Insurance

Due to the pooling equilibria resulting from asymmetric information it may in some cases be difficult to differentiate between good and bad banks so that individual bank failures can affect all banks[136]. In this context deposit insurance schemes and implicit or explicit government guarantees can be interpreted as a substitute for the lender of last resort to reinstall trust and to avoid a wide-spread banking crisis. Generating ex-post opportunism[137], deposit insurance and government guarantees may increase risk-taking of banks[138] while incentives for depositors to monitor banks are diminished[139]. Guarantees and deposit

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134 [Lastra, 1999], p.27 and p.33.

135 [Wood, 1999], p.74f.

136 On separating and pooling equilibria see [Wolfstetter, 1999], p. 270.

137 [Nelson, 2001], p.370ff.

138 See [Dewatripont, 1994] for more details on risk-based deposit insurance and its implications for risk-taking of banks.

139 The problems of moral hazard were mentioned also in the section about the lender of last resort, on this see e.g. [Richter, 1991], p.58.

insurances, approximated by the price of a put option for non-performing loans[140], may thus have rather negative effects on bank stability[141]. Implicit and explicit deposit insurance schemes are probably similar in the direction in which they distort the incentive scheme while the degree to which moral hazard emerges can vary in features like independent management, cover limits or private ownership, e.g. a private insurance could be a first-best solution[142]. The lack of deposit insurance systems could ignite a race for more regulation and protection leading to inefficiencies[143]. The direction of the impact of guarantees and deposit insurance schemes on economic interaction and further on micro- and macroprudential indicators could be compared to the lender of last resort while the extent of distortions may vary with the details of the system. In any case the surrounding formal and informal institutions - including personal networks - can either mitigate or foster the distortions resulting from these factors.

## 2.2. Formal Market-Stabilizing Institutions

### 2.2.1. Capital Markets

Capital and money markets are important vehicles for risk management in the banking sector since risks can be distributed among many market participants so that single defaults can less destabilize individual banks. Externalities can be coped with better due to a more efficient attribution of property rights by capital markets[144]. Both underdeveloped and advanced capital markets influence the incentives of market participants and the macroprudential indicators. To capitalize fully on the advantages of capital and money markets market participants have to undergo a learning process concerning the opportunities and risks attached to the market. For example, transparent capital markets can reveal information to banks, customers and supervisors and the central bank can influence risk-taking behaviour better by using price mechanisms like interest rates in open market transactions[145]. Since it cannot be disputed that stability risks can also arise from capital and money markets the surrounding institutional

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140 The standard Merton-Ronn-Verma approach can be used and broadened by introducing default probabilities in order to calculate the price for government guarantees; see [Braun, 2001], p.355ff. and p.365.

141 For another discussion of the pros and cons of deposit insurance schemes see [Lou, 2001], p.286ff. Other regulation like capital standards and incentives to foster private supervision were not able to compensate for these higher costs; see [Barth, 2002], p.31.

142 On this and the advantages of implicit and explicit deposit insurance see [Miller, 1999], p.50ff.

143 [Barth, 2002], p.5. On the design of deposit insurance schemes see [Ketcha, 1999], p.221ff. For a discussion see [Garcia, 1996] and [Garcia, 1999].

144 On ownership and corporate governance of stock exchanges see [Köndgen, 1998] and [Schmidtchen, 1998].

145 [Goodhart, 1998], p.109

framework - e.g. transparency-generating measures - have to be considered[146]. The consequences of functional and dysfunctional capital market for macroprudential stability range from effects on management, risk sensitivity, profitability and capital adequacy to influences on contagion risks, economic growth, monetary policies and the balance of payments. A positive institutional analysis can reveal at least in part how the underlying transmission mechanisms work by looking at the contractual environment, agency relations and the property rights structure.

### 2.2.2. Fiscal Policy

In some specific cases fiscal policy can have direct implications for the stability of the banking sector that exceeds the general destabilizing effects of lax fiscal policy. Among those are implicit and explicit government guarantees and direct and indirect subsidies to the banking sector or to other sectors of the economy. Those generally limit the decision-making freedom of economic agents, raise costs and create a bias to stay - hampering economic change and reform. Included in this policy is the too big to fail doctrine for large systemic banks which significantly distort the incentive scheme. Bank stability could thus be influenced if exogenous fiscal shocks - such as a pension crisis - would reduce the official capacity to bail-out or support banks. Vice versa distress in parts of the banking sector could reduce the general ability or willingness to provide financial support – depriving the banks of their security net and reducing trust in bank security.

Policies of ill-timed fiscal reforms, e.g. tax system reforms, can also contribute significantly to stability risks in the banking sector. This is especially true if uncoordinated fiscal and monetary policy occur at the same time[147]. If these policies foster asset value inflation the critical financial situation of banks could be further undermined[148]. Under a deficient tax system burdens for state-owned banks may be severe to create a framework for economic development and interaction. Financial transactions and interest gains as well as bank profits can be taxed more easily due to usually stricter disclosure requirements. Especially in developing or emerging markets there could be biases in the mostly rudimentary tax and transfer systems. This could reduce the incentives for banks to generate profits and could further promote tax evasion and the creative use of accounting measures - with the result of reduced transparency and less possibilities for private monitoring and official supervision.

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146 [Norton, 1999], p.303f. suggests official regulation.

147 [Olson, 2000], p.261 claims that these patterns are transferable from developed countries to emerging market banking sectors.

Externalizing problems of tax collection fiscal policy could also take recourse to the banking sector with the discussed consequences for capital allocation[149]. On the recipient side the transfer system also bears opportunities and risks since they can influence the willingness to innovate or could trigger protest which could endanger economic growth and development.

### 2.2.3. Monetary Policy

#### 2.2.3.1 Interest Rate Regime

The effectiveness of monetary policy today depends on functioning credit and capital markets to facilitate e.g. open market operations[150]. A lack of sophistication of those fosters the need for alternative, mostly administrative monetary instruments and interest rate regimes[151]. In many cases the consequences are either artificially large interest rate margins or administrative measures which foster negative real interest rates, e.g. low-interest plafonds for specific industries or ceilings for credit interest rates[152]. These measures can thus lead to a neglect of commercial criteria in lending and to excess liquidity and potential inflationary pressure. Hence, administered interest rates, artificial liquidity levels and inflation as well as the volatility of inflation rates generate significant distortion due to a reduction of the informational and planning value of interest rates. Considering the correlation between interest rates, liquidity and asset prices bank operating under such conditions are subject to massive risks from administratively induced asset price changes. And despite the fact that banks have proven to be capable of operating profitable in high-inflation environments excess

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148 [Olson, 2000], p.263

149 On implications of inefficient tax systems on the banking sector see for example [Schröder, 1994], p.31.

150 Criteria for monetary instruments could be market conformity; stability of the currency; the possibility to signal through the use of the instruments; the creation of stable market expectations; and no distortions in the competition; see [Wentzel, 1995], p.102ff. On the implications of capital markets for Central Bank sovereignty see [Saving, 1998].

151 As discussed before deposit interest rates and interest rate spreads are usually sound indicators of the financial stability of single banks and the banking sector; see [Rojas-Suarez, 2001], p.1 and p.22ff. Estimated as the ratio of bank's interest rate payments to total deposits. Spread as (ratio of interest received over total loans) minus (ratio of interest payments over total deposits).

152 In general, also interest rate volatility is detrimental to the stability of the financial system since banks and debtors since economic planning is impaired; compare [IMF, 2000], p.11. Additionally, regulated or subsidized cheap credit may constitute a bias towards credit financing which could hamper capital market development. Efficient capital markets which provide alternative sources for corporate financing and risk transformation opportunities may, however, not be allowed since they could undermine other official administrative measures; compare e.g. [Schröder, 1994], p.27ff. Other quantitative regulation may include differential reserve requirements for foreign currencies. This might create an additional incentive for foreign currency borrowing.

liquidity can induce higher risk-taking by banks and by borrowers[153] which has negative repercussions for bank asset quality. The more importance collateral has for banks the more crisis-prone is the banking sector when asset prices consolidate. Additionally, regulation leading to interest rate discrimination, e.g. through the mentioned plafonds can crowd out market participants. This often results in an indirect subsidization of unprofitable and inefficient state-owned enterprises. Specific refinancing facilities at the central bank for credits to state-owned enterprise, state-backed entities or projects could further distort the credit portfolio of commercial banks. In case that negative real interest rates prevail for a longer period lower deposits, credit contraction capital flight and a preference for non-financial investments can be the consequence[154]. This increased incentive to borrow[155] can induce even more government interference[156] and can foster a lending boom which negatively affects bank asset quality so that the ratio of non-performing loans is likely to increase. Contrary to this, regulated high real interest rates can crowd out serious customers and leave the market to high-risk and rogue investors. This adverse selection can also undermine the stability of the banking sector[157]. Depending on the range of monetary instruments the money basis, liquidity, interest rates, and the credit volume and its growth rate macroprudential indicators are affected by the interest rate regime[158]. Its specific features determine the impact on macroprudential indicators like capital adequacy, management soundness, asset quality, profitability, lending and asset prices as well as economic growth depends on its specific features.

#### 2.2.3.2 Exchange Rate Regime

As described above the exchange rate regime is a significant determinant for the likelihood of a banking crisis and the costs associated with it[159]. Artificially fixed or pegged exchange rates have proven unsustainable in many cases[160] and inconsistencies in monetary and exchange rate policies can create significant additional risks. Administrative deviations from the market

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153 [Goodhart, 1998], p.104

154 But also swift downwards changes in inflation rates, e.g. after a boom can bear significant risks since nominal income and cash-flow figures will deteriorate and will though threaten the solvency of banks.

155 Even when marginal returns on investments are close to zero; see [IMF, 2000], p.11.

156 Compare [Schröder, 1994], p.28.

157 [Timmermans, 2001], p.121

158 The interest rate regime could have also been classified as a market-regulating institution. However, since the interest rate regime has already been reformed more and more stabilizing effects of market-driven interest rates are effective.

159 On the influence of the exchange rate regime on banking crises see [Martinez-Peria, 1999].

160 See e.g. in Russia, Latin America and East Asia.

price of a currency either support the export industry or the non-export sector depending on the policy agenda of the government[161]. A direct impact for banks exists through the foreign exchange trading positions and especially off-balance sheet positions like derivatives can imply high risks. However, since the volume of these positions depends on the sophistication of banking products offered in a specific market, risk sensitivity may vary largely. The larger and more indirect impact is derived from the bank credit portfolio and depends on the risk positions of borrowers[162]. A particularly critical point is the viability of the exchange rate regime. If market participants assume the break-down of a fixed regime the intended channelling of economic interaction is countervailed and short-term speculators prevail[163]. The resulting uncertainty hampers economic interaction and planning which can lead to suboptimal investment rates or distorted investment incentives. In these cases a large degree of government commitment or credibility is necessary to maintain the planned exchange rate - to the detriment of monetary control. Hence, not only the specific features of the exchange rate regime are important for the analysis. Also the credibility of the mechanisms has to be considered when the impact of the - changing - exchange rate regime in China is assessed. In this dynamic context especially indicators like market risk positions and macroeconomic indicators such as the balance of payments, economic growth and contagion will play a crucial role.

## 2.3. Informal Market-Regulating Institutions

### 2.3.1. Networks and Politicization

The relatedness and connectivity within and between groups and among individuals structure human interaction and can provide significant advantages for well-connected actors. The more efficient networks work, the more influence they can exert on the institutional development and the implementation of institutions. Official networks may include party networks, government financed networks, economic and political associations as well as expert round tables. Not only functional but also regional peer and pressure groups can gain significant influence. Universities, city communities, family ties or neighbourhood relations

161 [IMF, 2000], p.11

162 [Brüggemann, 2002], p.26. Closely connected to the exchange rate regime and the balance of payments the terms of trade can impact on bank stability via the debt-servicing capacities of import and export businesses. While a terms of trade deterioration affects the export industry upwards movements inflate import prices and can bear inflationary risks leading to asset or equity bubbles and thus distorted investment incentives; see [IMF, 2000], p.10.

163 Also sudden reversals of capital inflows coinciding with an increasing or already high current account deficit in terms of GDP vulnerabilities tend to increase risks for bank stability.

can have a strong influence on economic and political leader's decision-making and on public opinion[164]. Especially when the institutional framework is not yet fully developed, these ties and relations tend to replace more formal institutions. Advice and informal rules issued by these networks, e.g. churches, can partly be regarded as a vital component to the structuring and channeling of economic behaviour. For the economic system and in particular for the banking sector a high degree of political influence on economic decisions distorts the incentive scheme for actors and can easily lead to misallocations of capital. Informal connections create incentives to overrule formal institutions in this respect to generate windfall profits. This general politicization has an impact on management soundness, asset quality as well as profitability and risk positions on the microprudential level while the entire range of the introduced macroeconomic indicators can be affected negatively or positively by government influence. However, despite the largely negative outcomes of cronyism and interventionism, politicization may generate positive returns for banking sector stability when the institutional environment otherwise is weak and fosters inefficient outcomes or behaviours like fraud.

### 2.3.2. Governance

Formal and informal governance mechanisms are a vital element of functioning markets which channel human behaviour to prevent e.g. financial and reputation damage in banks or companies. Governance codes cover a broad field from recruitment guidelines, work process and competence descriptions to guidelines for product promotion. In particular codes of conduct for individuals describing how and under which e.g. normative and ethical assumptions a task has to be performed have gained importance. Generally, internal governance codes reflect how companies want to position itself in a market and it mirrors rules, regulations, codes of conduct and conventions which prevail in the respective society. In economies with a dynamically changing institutional setting the informal parts of governance gain relative importance. Under these conditions the implementation of formal governance structures is usually more complex[165]. Formal rules of conduct for banks and enterprises often reflect both international best practices, e.g. OECD principles and national ideas which do not necessarily harmonize with each other. This may include communication and information structures or ways to conduct business. Potential gaps between formal an

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164 Russia and the PR China are only two examples.

165 The high importance of informal influences on governance in China is the reason why governance is listed as an informal institution in this paper.

informal governance guidelines can induce market participants to reject the whole set of rules or at least part of it. The resulting uncertainty among market participants is reinforced by incoherent or even contradictory underlying government policies and behaviour. In particular, severe breaches of governance codices like corruption, rent-seeking and asset-stripping are facilitated when governments have not developed stringent and transparent sanctioning mechanisms. Unaligned interests, discretion and distorted incentive schemes for market actors reinforce governance problems and further prevent the evolution of more specific governance rules[166]. Hence, the coherence of formal and informal governance rules will be included when the impact of the governance situation in the Chinese banking sector on various macroeconomic and microprudential indicators such as profitability, management, credit policies and risk positions is examined.

### 2.3.3. The Rule of Law

The rule of law describes not only the existence of laws and regulations but also their implementation and enforcement. For instance an independent judicial system and anti-corruption measures are vital components of the rule of law. More specifically issues like well-defined creditor and shareholder rights have a particularly high relevance for the banking sector[167]. The rule of law is a basic institution which provides certainty for market participants that existing formal rules are implemented and sanctioned. The official legislative approach, the efforts to support the rule of law and the degree of government discretion also contribute to the effectiveness of the rule of law and its perception among market participants[168]. This effectiveness is essential for economic interaction and contracting among market participants. A lack of rule of law creates incentives to deviate from all kinds of officially sanctioned formal and informal institutions, including private contracts, which increases uncertainty and transaction costs for economic interaction. Under these circumstances the resource allocation is hampered with the result of a suboptimal economic performance. In such an environment informal institutions gain importance relative to formal institutions which diminishes transparency for system outsiders and can foster illegitimate insider discretion. Hence, the rule of law gains particular importance under asymmetric information for example when

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166 [Norton, 1999], p.303

167 [Claessens, 2002], p.2. Specific institutions which could be helpful for bank stability - depending on the development of the financial markets - could be maximum lending limits to single borrowers and punishment of market manipulation; see [Norton, 1999], p.307.

168 Legislation can also reflect an attempt to disguise government responsibility for banking sector distress; see [Olson, 2000], p.268f.

investors are not familiar with the details of the specific system and have to rely on accessible information and rules. In a country like China where investors from other industrialized countries have already the initial impression of distinction - e.g. due to the different language, culture and design of economic contracting - the reliability of the legal and judicial system may have an even greater impact on economic interaction. Hence, the rule of law impacts broadly and through various channels on microprudential and macroeconomic indicators. Capital adequacy, management soundness, asset quality, profitability as well as the balance of payments, economic growth and the risk of contagion are among the indicators that can be assumed to react to the state of the rule of law in the People's Republic.

## 2.4. Informal Market-Stabilizing Institutions

### 2.4.1. Credibility and Trust Levels

Government credibility and the credibility of the regulatory and supervisory agencies are vital components of the banking sector stability[169] which depend on several components. Among the most important are the effectiveness of government agencies and their legitimacy. The former is correlated with the expectations of market participants of whether the institutions in place can provide an appropriate and effective resolution of problems in the banking sector, e.g. contingency plans for bank failures or the introduction of adequate institutions to cope with their impact. These can help to build trust in the crisis-resolution capacity of the government - and can though contribute to prevent a crisis. The possibility to react swiftly and determined can also help to prevent the spreading of a banking crisis throughout the sector and the real economy[170]. However, a large share of government ownership or government activity in an economy may lead to distorted expectations concerning the problem-resolution capacities of the state. The second component of government and regulatory credibility - the legitimacy of government agencies - depends on the degree of economic and political participation. While general political and economic participation usually enhances the reputation and credibility of government agencies, the degree of participation may signal a trust level concerning the official institutional setting. For example low economic growth, declining per-capita incomes, high unemployment rates but also autocratic political structures and a resulting fragmentation of society can significantly undermine the credibility of

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169 On approaches towards bank recapitalizations in the aftermaths of a crisis see [Honohan, 1999].

170 Excess liquidity and asset price or lending booms may in some situations contribute to credibility problems of central banks and governments. Alan Greenspan has suggested so and favours injecting liquidity after a consolidation. Others claim that it is essential to prevent asset bubbles without indicating how; see e.g. [Allen, 1999], p.9ff.

government agencies in general. The result of low government and regulatory credibility can thus also be a greater importance of private networks. In transition economies with contradicting institutional settings - e.g. incoherent formal and informal institutions - these tendencies can be amplified so that the credibility of private organizations or individuals exceeds that of official agencies[171]. Nevertheless, the adherence to financial regulation by market participants and thus also banking sector stability depends highly on government and regulatory credibility and the implied sanctioning and enforcement mechanisms - even more so when private monitoring mechanisms have not yet been established. The impact of government and regulatory credibility on macroprudential indicators is consequently rather broad and interrelated with institutions such as the rule of law. Possibly all microprudential indicators are affected by this informal institution. Between some macroprudential indicators - especially economic growth, lending and asset price booms and the balance of payments - and the listed institution government and regulatory credibility a feedback loop seems possible which has to be considered in the analysis.

### 2.4.2. Mentality and Innovation

Economic considerations are not necessarily the centrepiece of the choice set in the banking sector. Under different behavioural constraints e.g. soft budget constraints can evolve. Their control can be severely disrupted by seigniorage revenues for the government[172] and multiple goals for bank management and staff. Since costs can be socialized, problems with qualification, mentality and the innovatory capacity of the banking sector are often covered by government subsidies or guarantees. This leads to further reduced controls of e.g. operating costs or loan losses. As a consequence also branch networks, staff numbers and lending figures can be inflated with artificially low risk premiums[173]. Against this background bank managers are induced in the short-term to prolong troubled or non-performing loans to avoid

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171 Trust between the different economic actors is core to an alignment of interests and thus the reduction of transaction costs.

172 Four behavioural assumptions are claimed by some authors to be vital to the existence of soft budget constraints. First, an expansionary impetus by planners and managers which is reflected by the importance of investment over consumption in socialist countries´ development strategies; second, a paternalistic relationship between the government and the enterprises is assumed so that financial aid is granted in case that companies are in difficulties; third, informational asymmetries hamper the governments efforts to reduce soft budget constraints which can lead to shortages and the chronic danger of an economic overheating; fourth, the prevalence of state-owned enterprises is necessary to generate significant distortion within the economic system; see [Raiser, 1996], p.31f. As discussed above, the fundamental reason for banking crises in the past has been inadequate risk-management by banks; compare [Fernández de Lis, 2001], p.331.

deprecations and the reduction of bank core capital. Regulatory agencies under these circumstances may be induced to back these unsound practices to avoid major distress in the banking sector. Hence, to turn around the economic situation of banks in commercialization and privatization phases requires a different set of management qualities. This implies operations in a more uncertain and risky environment[174] contrary to command economies in which risk management[175], control functions and partly even bank operations are conducted by government supervisory authorities[176].

Informational asymmetries in the banking sector can amplify qualification and mentality issues due to a lack of sensitivity for price signals and profit incentives among staff. This could lead to financial distress through e.g. wrong evaluations of collateral or credit concentration[177]. Since a qualified workforce can control part of these risks and can send signals to investors and internal and external supervisors, staffing is vital to a bank's success. This includes the vast area of innovation in banking services. Only qualified personnel will be able to develop competitive products which will pass the regulatory agencies and by this enhance financial market development. Depending on the set of goals of the government, interference with the recruitment processes can thus be counter-productive and may result in complex agency problems and conflicts of interest[178]. Consequently, mentality issues have a wide range of consequences for individual banks and the banking sector as such. Next to the entire range of microprudential indicators mentality issues also influence the macroeconomic variables relevant for banking sector stability, e.g. lending booms and asset price developments, contagion, fiscal and monetary policies as well as economic growth.

## 3. Applied Aspects of New Institutional Economics

### 3.1. Common and Conflicting Interests and Institutional Patterns

Under strategic insecurity when the outcome depends on the actions of at least two people, institutions become important to structure human interaction, to reduce insecurity and to make

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173 [Pomerleano, 1998], p.7

174 [Claessens, 2002], p.2

175 On bank risk management and specific approaches see e.g. [Eller, 2002].

176 For example, in Japan the Ministry of Finance determined the depreciations until 1993. For this and a discussion on inadequate risk transformation see for example [Pasternak, 2001], p.26f. On a more detailed discussion concerning credit rationing under uncertainty and asymmetric information note the Stiglitz-Weiss model, discussed in [Baltensperger, 1987], p.136ff. Here, the interest rate level is taken as an indicator for the quality of the borrower in absence of better information or trust (ignoring ceilings and floors).

177 See for example [Bonn, 1998], p.18ff. and 26f.

178 See e.g. [Goodhart, 1998], p.107.

outcomes more efficient[179]. Especially when a vast array of market participants on different levels are included economic interaction is complicated by relationships determined by intra- and inter-organizational hierarchies or other ranking systems within the economic, social and political system. In these complex environments the identification of common and conflicting interests is a first step to reveal informational and incentive problems. Common interests facilitate interaction and problem resolution through institutions or even make institutions redundant. In case of conflicting interests among market participants or in case that both common and conflicting interests exist at the same time and concerning the same issue, institutions channel economic interaction. In this paper both conflicting interests and the resulting incentive problems will dominate the analysis since their relevance for the institutional impact on macroprudential indicators and thus on banking sector stability is highly significant but more difficult to grasp[180]. The identification of the institutional impact on economic interaction and thus the market results is further complicated by a rapidly changing institutional environment. The rate of institutional change during the economic transition in the People's Republic of China is particularly high. Hence, the awareness for institutional change, its drivers and its impacts on economic interaction is a necessary analytical component in this paper.

When describing the underlying drivers of institutional evolution mere functionalistic approaches are potentially misleading[181] since both the deliberate creation of institutions or their evolution over time are in fact influenced by interest groups and not only reflections on overall welfare[182]. Changes in the institutional framework usually create winners and losers and under these conditions gradual institutional change through continuous adjustments at the margin is observed in many settings[183]. This may partly explain a conservative bias in institutional structures since an interdependent web of institutions can generate significant

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179 This can be differentiated from parametric insecurity where the outcome depends on the state of nature; see for example [Voigt, 2002], p.32.

180 Especially for potential normative research the identification of distortions in the incentive scheme of market participants is essential.

181 Compare for example [Voigt, 2002], p.33.

182 [North, 1990], p.48 and p.68. The outcome of the institutional change process also depends on the power structure and the bargaining process which accompanies the institutional change. If groups backing the changes gain influence or if a credible compensation for potential losers can be agreed upon, institutional change may happen. In any case, economies of scale, complementary effects and network externalities of the institutional matrix have a tendency to support incremental and not abrupt institutional change and may lead to path dependence; see , p.342.

183 This can be modeled as a multitude of decision-making steps. The path dependence argument has gained significant publicity; see also [Feldmann, 1999], p.77f.

self-enforcing power[184] and path dependence[185]. This implies that a “natural gravity” towards good and more efficient institutions does not exist[186]. It also implies that distortions of the incentive scheme of all or parts of the market participants in the Chinese banking sector can hamper economic interaction in a way that has detrimental effects on macroprudential indicators. The identification of common and conflicting interests is especially relevant under rapid institutional change since informal institutions usually gain importance as a reference point for market participants and to achieve cohesion among them. Since the pace of development of informal institutions can differ from that of formal institutions severe distortions in the incentive scheme can result[187]. This unsynchronized divergence can induce lagged adjustments in the other type of institution, e.g. formal institutions can be adjusted to already prevailing informal codes of conduct. The transformation of informal institutions into formal institutions - or vice versa - causes problems especially when the new informal institution contradicts existing formal institutions[188]. Conflicting formal and informal institutions imply that individuals have to choose between two sorts of sanctions. Despite the resulting uncertainty and the costs of this distortion the resulting tension can also create a dynamic potential for development and openness for change[189]. The analysis of the institutional impact and the underlying incentive scheme under diverging “de facto” and “de

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184 [Busch, 2003], p.255f. and [North, 1990], p.95.

185 Usually, four basic explanations for the perpetuated prevalence of inefficient institutions are given. First, institutions might induce high initial fixed costs. Resulting economies of scale may lead participants to cling to this solution - especially under uncertainty this could be a powerful argument. Second, the existence of inefficiencies as such may diminish support for institutional change. Third, in a lock-in situation an already introduced institution may be difficult to exit or change. Fourth, small and stochastic events can create institutional solutions which could lead to a specific path once they prevail. In addition to this, complexity reduction and persisting mental models like values and ideologies and informal institutions contribute to the ubiquity of inefficient formal institutions; see [Arthur, 1988] and [North, 1990], p.95ff. Some authors claim that in case of a change in relative prices or relative scarce resources new institutions will evolve when a positive net benefit can be expected; see e.g. [Feldmann, 1999], p.74ff. and [North, 1990], p.51f. and p.77. Under path dependence the costs for institutional change increase significantly.

186 [Acemoglu, 2003], p.27ff. This is supported by the fact that voluntary contracting is not the only way to shift property rights. Not only inheritance and weddings but also cronyism and forced redistribution might occur - resulting in a more inefficient property rights structure than before; compare [Göbel, 2002], p.96f.

187 Compare e.g. [Voigt, 2002], p.40f.

188 On the importance of informal institutions see [North, 1990], p.53.

189 One component concerning the potential tensions between these two classes of institutions may be traced back to the different process of evolution. It can be assumed that especially formal institutions created in a top-down approach and bottom-up informal institutions bear potential for tensions while formal bottom-up institutions may find a better acceptance and may be less conflicting with the basic set of informal institutions.

jure" institutions is thus complicated[190]. The complexities and the interdependence of formal and informal institutions foster the need of supporting analytical instruments which can identify the resulting informational or incentive problems.

## 3.2. Instruments to Identify Informational and Incentive Problems

### 3.2.1. Contractual Analysis

Contracts are an essential part of the institutional arrangement which determines economic interaction[191]. Definitions of contracts are broadly ranging from "agreement regardless of the existence and extent of judicial consequences" to "agreement with judicial consequences"[192]. The declaration of intent is crucial for the term contract and can itself be interpreted as a self-policing convention. As such it reduces uncertainty for the participants and increases the predictability of human behaviour which is one of the main features of institutions. Contracts and their sanctioning mechanisms create an opportunity to structure exchange problems on a continuous scale from markets to companies and organizations. The economic analysis of contracts assumes that every economic interaction between individuals and groupings is based on a contractual basis. This includes transactions that do not imply duties in a judicial sense. An analysis of quid-pro-quo exchange situations is generally less problematic than long-term contractual relations where contracting and settlement are split up into several stages[193]. Especially the analysis of long-term relational contracting is of importance in the Chinese context and thus in this paper. In these contracts market participants do not aim at unchangeable contracting and do not assume to be able to account for all contingencies ex-ante. In markets with high degrees of uncertainty these contract grant the opportunity to adjust contractual details in the course of time in a changing environment.

Relational contracts originate from the asymmetric information school of thought and aim at reducing ex-post opportunism. Since courts or other third parties usually have difficulties in

190 See also [North, 1990], p.45.

191 This approach is already supported by John R. Commons.

192 Under the latter usually also the written version of an agreement is covered. Some authors state that also the judicial consequences of declarations of intent have to be treated as a contract for an analysis; see [Llewellyn, 1931/1932], p.708.

193 The time-horizon of contracts is important for the decision which contractual concept is applicable in a specific situation. In as far as contractual concepts are concerned, the categorization of complete and incomplete contracts is complemented by a differentiation between classical, neoclassical and relational contracts. Concerning the informational structure asymmetrical information ex-ante is one case of hidden information and can lead to adverse selection. Asymmetrical information ex-post can lead to moral hazard and can be split up into hidden action problems concerning the agent and hidden

identifying the originally intended ratio of the contract, relational contracts aim at minimizing opportunistic behaviour. They include specific terms that are rationally left open to ex-post adjustments by the contracting parties. Five criteria are often attributed to relational contracts in a more or less strict way. First, contracting and settlement do not take place at the same time. Second, the contract needs to imply duties for both sides. Third, there has to exist a mutual dependence of the contracting parties due to transaction-specific investments[194]. Fourth, the contract has to be incomplete. Fifth, parts of the contract or the contract as a whole are not enforceable - this might be due to verification problems, high enforcement costs or contractual provisions that are in conflict with the law[195]. Relational contracts may thus include implicit or non-verifiable elements which make the parties unique and not exchangeable. The reasons for not specifying the contractual conditions completely in relational contracts are multiple. The concept of relational contracts - which is essential to the new institutional theory - stresses the fact that a single transaction is always part of a larger context of economic relations whose exact form and extent nobody can foresee ex-ante[196]. Specification costs would be prohibitively high when all possible contingencies would be accounted for in advance. Further, a complete specification can destroy mutual trust, especially in long-term contracts which could generate even higher costs.

Relational contracts are typically important when delegation is involved and often organizations are interpreted as a network of relational contracts. Both are due to the high degree of individualization, the extended time-horizon and the expectation that differences between the parties are a common component of interaction and contractual relationships. These differences are expected to be overcome by consensus and other resolution mechanisms[197]. In case of ex-post adjustments the entire contractual relation is considered as a reference and not only specific provisions set out in the original contract[198]. Depending on the

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information problems concerning the state of nature. Usually, complete contracts include classical and partly neoclassical contracts.

194 This can foster contractual mechanisms, so-called private ordering, which increases the probability that the contract is adhered to. Forms of private ordering are self-policing contracts, tit-for-tat strategies, third-party enforcement, regulation or the union of the parties.

195 If this criterion is applied principal-agent contracts can hardly be a relational contract.

196 For more details see [Macneil, 1978] or , p.41 and p.167ff.

197 , p.168 also recurs to Macneil´s idea of a relational "pole" at which relational contracts are still contracts in a judicial sense. Due to this measure contracts like the "contrat social" would not be contracts in a judicial sense.

198 [Macneil, 1978], p.890. In this sense accounts can be settled over time, see also [Voigt, 2000], p.110f. Three general approaches to are usually followed to solve diverging ex-post interests among parties. First, the reconstruction of a complete contract in court; second, the transformation into a complete contract through the attribution of residual rights and third, the introduction of self-policing contracts.

realized state of nature the renegotiations have to identify appropriate actions. In case of a failure of these negotiations exchange will not be realized to an efficient degree. In fact, relational contracts are less frequent than often expected due to high transaction costs, e.g. forecasting, decision and negotiation and enforcement. Additionally, market participants may in part only have the "exit" option since their "voice" option may have become too expensive. Hence, when the lock-in effect due to partner-specific investments does not bind any more the value of relational contract - its capacity to overcome incentive problems and to structure economic interaction - is significantly diminished.

The surrounding institutional setting can distort incentives for market participants in the banking sector so that the value of specific investments is reduced and opportunism is fostered e.g. by additional outside options like possible asset stripping. It then depends on the common or conflicting interests of the contracting partners and additional institutions like the rule of law whether they can revert to the originally intended ratio of the contract. The specific investments in relational contracting are core mechanisms to create this cohesion while leaving contractual terms deliberately open for ex-post adjustments by the contracting parties to create the necessary degree of flexibility[199]. An example of informal contractual relationships in China - which can be modeled as relational contracts - are the discussed guanxi-connections which are precious to the partners but evolving flexible over time. The concept of relational contracts with its long-term perspective and high dependence on informational elements is thus a suitable means to structure human interaction in the Chinese banking sector to identify both informational and incentive problems which influence macroprudential indicators.

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In the first case the court tries to identify the efficient contract that would have been agreed upon would the newly emerged information have been known ex-ante. The second instrument, the redistribution of residual rights might be useful to avoid overall inefficient decisions which the individuals might take in order to maximize their utility. By internalizing the external effects through the attribution of decision-making power the negative effects are mitigated. Third, self-policing contracts include elements that both parties have an individual interest in adhering to. Specific investments - increasing the payout at adherence - or reputation are possible means to support self-enforcement. In this case the residual rights are completely attributed to avoid incomplete contracts so that only verifiable elements remain. Consequently incomplete contracts can be enforceable even though they include elements that cannot be observed by the contracting party or a third party. To solve the verification problem partition rules can be chosen to split the disputed returns. However, partition rules imply an unequal distribution of risk and even if the consequences of ex-ante opportunism can be mitigated through partition rules - which are activated ex-post - this might be a not sufficient measure to account for the consequences of ex-post opportunism; see [Zimmer, 1993], p.103f.

199 For a basic formal model see [Tirole, 1988], p.31ff.

### 3.2.2. Property Rights Approach

Core to the property rights approach is the idea that the design of property rights influences the allocation and the use of resources in a systematic and predictable way[200]. Through the incentive structure of market participants, property rights influence the individual economic decision-making situation, the decision itself and the related expectations of the individuals[201]. The property rights approach assumes that problems of economic interaction can be solved by two basic institutions which are private property and free contracting. The efficiency of the property rights structure, hence, depends on the distribution at the beginning and the form of change[202]. Depending on the underlying resource it is usually differentiated between absolute and relative property rights. Absolute property rights describe the property of both tangible and intangible goods - like reputation and human capital - over which the owner can command. Relative property rights are or contractual origin and are only enforceable towards specific individuals while absolute property rights are enforceable towards all individuals. Consequently, a property right can be defined as any right to command over tangible or intangible resources due to law, contract or social liability[203]. In some cases also the social capital, e.g. personal relations, is included in the individual property rights. Hence, any resource is surrounded by four types of property rights. Those are the right to use a good (ius usus), to keep the returns (ius usus fructus), to change the form and substance (ius abusus) and the right to pass on the resource (and the attached rights) partly or as a whole to others or to deny this (ius successionis)[204]. The value of property rights in fact depends on a multitude of variables. The more comprehensive the bundle of rights to a resource the higher is the expected utility[205]. When high costs of specification, enforcement and transfer of property rights can be expected, the value of the resource decreases[206]. A lower value of a property right could lead to an inefficient use of the resource or even complete neglect of the property right by the owner. But it could also induce investments, e.g. in order to exclude others from using the resource. The same effect is realized if income flows from a property right can be disturbed by third parties without imposing on them the full costs of their action[207]. Hence, the value of property rights and the value of the underlying resource can be significantly reduced

200 See among others [Richter, 1998], p.328 or [Feldmann, 1995], p.47.
201 [Elsner, 1986], p.329 and [Furubotn, 1972], p.1139.
202 [Göbel, 2002], p.93
203 [Göbel, 2002], p.67
204 See among others [Göbel, 2002], p.66ff. or [Feldmann, 1995], p.64.
205 [Göbel, 2002], p.69f.
206 [Göbel, 2002], p.70f.
207 [North, 1990], p.31

by externalities. This shows that the internalization of externalities is one of the main features of property rights.

There are several criteria due to which property rights can be categorized. The distribution of property rights is probably the most common and also core to the institutional analysis of the Chinese banking sector[208]. Here, property rights are categorized on a continuum between private property rights and common property rights. Private property rights imply that all rights on a resource are pooled in the hands of a single individual. This distribution is often claimed to be the ideal category of property rights[209]. Deviations from this form of property rights can induce motivational, control and legitimacy problems due to an incomplete appropriation of returns from invested resources. Possible deviations from this ideal type are common property rights. Here, the entire bundle of rights is attributed to a clearly defined group of individuals[210]. Within the group the property rights are not exclusively attributed so that all property rights have to be exerted by the group as such. The resulting externalities for group members might take the form of excessive use of the good or underinvestment, i.e. free riding[211]. Collective action problems obviously arise when externalities such as over-utilization, underinvestment or free-riding are internalized. Specific institutions such as contracts may help to channel the individual behaviour but it remains unclear whether they can also contribute to an efficient use of resources in an environment of common property when motivational problems are taken into account[212]. Between the extremes of private and common property rights the continuum shows different grades of shared property rights. They exist when property rights of one resource are dispersed among different individuals[213]. In reality property rights are commonly limited due to usage restrictions, transaction costs or moral or ethical constraints[214]. Specification or public administration of property rights as well as fees or court rulings are possible solutions to avoid possible market or state failures. However, the separation of property rights has also proven to be productive in the case of

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208 Some authors use the specification criterion to differentiate between limited and unlimited property rights.

209 On the evolution of property rights see [Brocker, 1992].

210 See among others [Göbel, 2002], p.72ff. Other people outside the defined group can be excluded.

211 See among others [Blankart, 1998], p.23f.

212 A specific case of common property rights are public goods. The property rights of this group of freely accessible goods cannot be attributed to a specific group of individuals. This implies to an even higher degree the risk of excessive use and under-investment since the individual is involved only at the margin. To avoid market failure in these cases, state activity - not necessarily state ownership - can help to ensure the efficient use of resources; for state activity see e.g. [Blankart, 1998], p.129ff.

213 [Alchian, 1969], p.352f.

214 This has created the term “diluted” property rights, [Pejovich, 1971], p.141ff.

labour division and empirical research indicates that mixed private and public institutions and organizations can be quite successful[215].

In an ideal world, property rights would be completely attributed and externalities would be completely internalized[216]. Under these conditions a shift of property rights by contracting would be automatically pareto-efficient which would improve the property rights structure further[217]. In practice, privatization is often claimed to be an example of pareto-optimal contracting since external effects are internalized and costs of individual behaviour cannot be socialized any more. Especially in the context of Chinese state-owned banks claims for massive and rapid privatization are frequently heard. However, privatization can be problematic because usually not all external effects can be internalized and asymmetric possibilities to externalize costs may prevent pareto-efficient privatizations. Further, the introduction of private property rights necessitates the evolution of different control mechanisms which can be costly in terms of financial resources and moral costs[218]. And since usually the marginal willingness to pay decides who purchases a property right, socio-political distribution issues enter the equation. The impact on overall welfare depends on the contractual design of privatization but it can be assumed that a certain preference for private property rights is necessary to support successful privatization[219]. For example in industrialized countries the prevailing property rights structure evolved gradually and often unconsciously and accompanied and supported by other moral and judicial institutions[220]. However, the underlying driver to promote private property is the idea that if costs and

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215 See Ostrom (1990), p.14.

216 For a more detailed discussion see [Richter, 2003], p.109ff.

217 [Göbel, 2002], p.93. Either of voluntary contractual origin, a result of fights or random events or common law; see [Göbel, 2002], p.96 and [Martiensen, 2000], p.227. For a more detailed discussion of the creation of property rights see [Richter, 2003], p.125ff. The discussion alludes to the so-called Demsetz hypothesis which claims that if the benefits of internalization at least compensate for the costs of institutional change the new institutional arrangement will evolve due to the preferences of the interacting people; see for example [Feldmann, 1999], p.67ff. This is closely related with the concept of transaction capital for the installation, maintenance and change as well as the running of the institutional setting; see for example [Richter, 2003], p.64.

218 Through the break-down of voluntary behavioural patterns. In this approach one team member might become the monitor and controls for the input and the structure of the team while being their only contracting partner. To overcome the social dilemma of the monitor, he has the right to appropriate the residual profit and can sell the rights to monitor and becomes though the “owner” of the team. Controlling for monitoring costs monitoring is an optimal solution for the negative repercussions of non-fulfillment of contracts; see [Alchian, 1972], p.777ff., [Martiensen, 2000], p.258 and p.256 and [Göbel, 2002], p.94.

219 [Göbel, 2002], p.96. Welfare increases seem to be neither a necessary nor a sufficient condition to explain the introduction of private property rights; see [Martiensen, 2000], p.227f.

220 [Feldmann, 1999], p.69

benefits could be directly attributed to each owner an efficient property rights structure could evolve. Hence, a general bias towards private property exists in new institutional economics which is supported e.g. by motivational arguments. In fact, theoretical and practical evidence indicates that resources are used more efficiently when private property is involved and that the utility maximizing individual is better motivated if the above mentioned rights are attributed to it personally[221].

The design of an economic system significantly affects the property rights positions of the market participants[222]. Three basic elements of economic interaction illustrate these differences. First, the right to coordinate the economic and productive process - combining the ius usus and the ius abusus- can take various forms in different economic systems[223]. Second, the rights concerning the appropriation of the residual - the ius usus fructus- can be different. And third, the right to trade the above mentioned rights - the ius successionis - can take different forms. The diverging approach towards property rights becomes obvious when command economies, market economies with some government stakes and private market economies are compared.

In central command economies property rights of the individual are completely diluted[224] and the individual cannot exercise common property rights. The right to coordinate and the right to appropriate are localized in the domain of the political leadership since detailed central planning is an integral part of these economies. In practice, many rights are delegated to local leaders. Previous property rights analysis have clarified that this form of organizing an economy generates significant transaction costs, e.g. vast information, monitoring and control costs[225]. Since the private rate of return is theoretically at zero, usually no motivational incentive to improve system efficiency arises - neither on the production side nor on the side of the administration[226]. Since incomes mostly depend on the fulfilment of plan-figures there is obviously little reason for an ambitious target-setting which hampers resource allocation.

221 [Göbel, 2002], p.71f. If only accounting for information costs while neglecting other transaction costs, some authors suggest that neither private property nor public goods make efficient contracts more probable since in both situations participants have an interest in not disclosing their private information. With private property this interest decreases in the number of participants while the opposite is the case for public goods; see [Martiensen, 2000], p.245.

222 See among others [Feldmann, 1999], p.108ff. For a categorization of economic systems see e.g. [Eucken, 1965], p.237f.

223 The planning, implementation and the monitoring of the company's policy.

224 Compare [Feldmann, 1999], p.121ff.

225 See e.g. [Moore, 1974], p.331f.

226 This would only be the case if the private rate of return and the public rate of return would be on a comparable level; see [Feldmann, 1999], p.74.

Due to a lack of control the production staff and the heads of the companies usually have a large discretion to use common resources for their own purposes. A perpetuated system of cronyism is often the consequence of such incentive systems.
In more mixed economic systems the government retains stakes in crucial sectors and companies to influence their business policies while other segments are privately organized. With only some minor private stakeholders without a significant say the state - mostly represented through its government - in fact has the right to appropriate the returns and to sell the company or bank. The right to coordinate the production process normally stays with managers who act on behalf of the state. In reality it can be observed that former politicians, allies or members of a government-supporting interest group form part of the management to influence the entrepreneurial process in a way that suits the goals of the politicians in charge. Hence, significant inefficiencies in the use of resources are common. Since there is no direct control mechanism for the citizens incentives to monitor the management are diminished. Further, with no direct possibility to appropriate returns the incentive to exercise management control by participating in political elections is minor. Hence, politicians only have little incentive to pressure for an efficient entrepreneurial behaviour in state-owned companies and banks but might be tempted to use these resources to promote special interest groups and to secure their re-election. This will not only have an effect on the conduct of the management but has also implications on the way banking and corporate regulation has to be structured since private monitoring of the banking sector becomes more difficult under these circumstances. Political ties and the potential cronyism might induce the management to pursue rent-seeking opportunities or to seek protection which further decreases the competitiveness. In economic systems in transition where reporting and risk management systems are not yet sufficiently installed, transaction costs can be expected to be high enough to create incentives for managers to follow their own agenda, even though the shareholder structures have just started to change in the direction of public limited companies[227]. Also a large number of small shareholders reduces the individual marginal return of control while the individual marginal cost of control increases[228]. Under these circumstances managers might pursue a bundle of private goals where e.g. entrepreneurial risks are not adequately attributed

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227 The higher transaction costs are the higher the degree of discretion that managers can use to pursue their personal goals; see [Feldmann, 1999], p.112.

228 This may create a free-rider problem comparable to a public good situation and may imply the need for market regulation.

and where losses can be easily socialized[229]. Excessive expansion, overstaffing and less openness to outside resources are only some risks resulting from this incentive structure[230]. Hence, the analysis of the Chinese banking sector will partly recur to property rights when informational and incentive problems in economic interaction need to be identified to asses the impact of institutions on macroprudential indicators.

### 3.2.3. Agency Approach

The basis for economic interaction are the relations between market participants which are determined by common and conflicting goals. Those are influenced by asymmetric information, i.e. informational problems and behavioural issues, i.e. incentive problems. The agency approach aims at structuring relations between market participants on different levels by describing them as contractual relationships including a delegation of decision-making authority between the contracting partners[231]. These agency relations in this sense imply individual utility maximization depending on the respective property rights positions and an influence of the agent's actions on the utility of the principal. In this situation the informational asymmetry creates discretionary power for the agent[232]. Since in some cases the dependence is mutual the roles sometimes remains unclear. Generally, the agent executes a delegated task and receives a compensation which is computed with the help of ex-ante defined criteria. The principal receives the returns from the agent's actions. Opportunistic behaviour is possible since the utility functions of the contracting parties differ so that ex-ante asymmetric information fosters hidden information and hidden characteristics. Contrary to this, ex-post asymmetric information can lead to moral hazard which again can be split up into hidden action problems concerning the agent and hidden information problems concerning the state of nature. Hidden information describes situations in which the principal can observe the agent's efforts but has no sufficient additional insight in the relevant information set that guides the agent. So the principal cannot exclude the possibility that fringe benefits for the agent induced the effort. If the principal could observe the information

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229 In reality, state-owned companies competing with private companies usually deliver lower performance at higher costs - with obviously negative results for the overall economy and the tax payer. For an analysis of the Australian banking sector see [Davies, 1987]. For a more general study see among others [Blankart, 1984], p.236.

230 Compare [Feldmann, 1999], p.117ff. State banks are often founded to overcome perceived market failures or deficits and the promotion of certain political goals like infrastructure development or the provision of banking services to a broad population.

231 [Jensen, 1976], p.308

232 Compare e.g. [Pratt, 1985], p.2.

level and the actions of the agent the first-best solution preferred by the principal could be achieved since the possible opportunistic behaviour of the agent would be revealed and could be sanctioned. The necessary information for this is, however, not available or too costly to obtain for the principle. Contrary to hidden information, adverse selection is often described as a problem of hidden characteristics[233]. This implies that the characteristics of the agent cannot be revealed ex-ante to the principal. Depending on who picks the contracting partner, either the principal or the agent[234], the typical agency problem and risk incurs when one party can deceive the other concerning the implied risks[235]. Hidden action - as part of the ex-post informational problems - may occur when the principal cannot observe the efforts of the agent at all or at zero cost. Here as before, the outcome depends on two variables, the effort of the agent and external shocks which are subject to ex-ante uncertainty. Problems like shirking - e.g. working at sub-optimal productivity levels and underperformance - and of consumption on the job may arise from this situation. Since the outcome is dependant on exogenous random events or actions of other market participants the agent's efforts cannot be derived ex-post. Since the principal cannot observe these two components directly he has a severe informational disadvantage which the agent can capitalize upon to pursue his own goals. The complex relations in the Chinese banking sector with its multiple layers of market participants can be described and structured by parts of the agency approach to facilitate the identification of informational and incentive problems.

This already indicates that the complexity of agency problems can exceed the case of dualistic agency problems in several ways. The number of contracting partners can increase as well as the number of hierarchical levels and the number of tasks covered in a specific contract. In a setting with more than one agent there are two countervailing impacts. On the one hand, informational asymmetries are reduced since exogenous shocks affect all agents and the effort level of a single agent becomes comparable and transparent for the principal, e.g. as a deviation from the median leading to a rank order tournament.[236]. On the other hand the informational asymmetry may increase, e.g. in case of teamwork where the single effort is hard to observe for the principal. Additionally there might exist agreements between the agents to underperform collectively. This would distort the rank order and the compensation

233 Hidden intention is also listed by some authors as part of this group. However, here this aspect should be summarized under the term hidden characteristics since the intentions of the agent may be interpreted as being part of his characteristics; see also [Göbel, 2002], p.103.

234 Employment and the insurance business respectively would be examples where different parties chose.

235 Compare e.g. [Feldmann, 1999], p.132ff.

236 For more details on rank order tournaments see [Lazear, 1981].

for the agents while reducing their efforts to the detriment of the principal[237]. In case of multiple principals for one agent loyalty problems may result depending on the organizational structure of the organization or the institutional arrangements. This can be reinforced when the agent can expect to serve different principals with diverging interest at the same time[238]. In some institutional settings these frictions are systematic. These problems are closely related to multiple-level relations between agents and principals. Since most agents also function as principals in hierarchies, coalitions between the different levels can evolve to protect individual interests. The extent to which this happens depends on the incentive structure of the institution or organization. It may, however, be that these "side-contracts" and this "cronyism" have positive effects by reducing agency costs through implicit contracts[239]. Independent of the number of principals, agents often have to cope with several tasks which may even be conflicting. To induce the agent to distribute his efforts in the optimal way for the principal, the latter has to balance the incentive scheme so that goals are pursued due to the principal's idea[240]. Hence, this analysis of the Chinese banking sector will aim at identifying institutional mechanisms which mitigate agency problems as described above. Reflecting the main contributors to agency problems - informational asymmetry and behavioural problems[241] - these will be factors which reduce asymmetric information, generate an alignment of interest between market participants and factors which create trust.

Reducing asymmetric information is highly related to regulation like capital adequacy or disclosure requirements and to institutions like innovation and competition. These help to close the informational gap between market participants. In general, measures like screening, monitoring or signalling are used to reduce informational deficiencies. Screening covers all ex-ante activities of the principal aiming at more information about the agent to reduce the risk of adverse selection[242]. To avoid the ex-post problems of hidden information and hidden action the principal can monitor the agent closely through a system of planning and control.

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237 [Göbel, 2002], p.106

238 See [Scott-Morgan, 1994], p.249ff. for an analysis of corporate conflicts with multiple principals.

239 Implicit can mean that a contract is self-policing. In other cases implicit describes contractual duties which are linked to the explicitly stated duties but are independent; see [Richter, 2003], p.268 and [Göbel, 2002], p.107.

240 [Göbel, 2002], p.108. The identification of the pareto-optimal contract is realized by choosing the contract with the lowest agency costs. However, since this positive paper does not compare contractual alternatives but tests hypothesis the concept of agency costs will not be introduced for the analysis. For more on this see e.g. [Pratt, 1985], p.3; [Göbel, 2002], p.125; [Jensen, 1976], p.328 or [Feldmann, 1999], p.136.

241 See for example [Feldmann, 1999], p.135ff. or [Göbel, 2002], p.110ff.

242 [Stiglitz, 1975], p.283ff.

Revision and controlling, supervisory boards and specific political committees can be interpreted as monitoring instruments. Obviously the monitoring process is highly complex and costly and may evoke new agency problems when the monitoring is delegated. Due to the specialization and labour division these problems can hardly be avoided[243]. Nevertheless, the agent might be interested in sharing information about his work efforts and external shocks with the principal to distinguish himself from agents with low efforts[244]. This can be a measure to foster risk-sharing and could help to maintain the compensational scheme for high working agents. The agent has the additional possibility to signal ex-ante to the principal that he possesses certain capabilities which the principal is looking for[245]. Obviously these signals are only credible when it is too expensive for the parties to send wrong signals[246]. Otherwise a pooling equilibrium will evolve and no informational gains can be captured. In a situation where costs for signalling can be easily externalized - e.g. failures can be blamed on other factors or soft budget constraints artificially prolong periods of failure - it will become increasingly difficult to achieve separating equilibria where agents with high and low efforts can be distinguished[247]. Institutional provisions which align interests between market participants achieve a synchronization of the individual utility maximization efforts which leads to the optimal result for the principal. The contractual patterns induced by the respective institution, e.g. competition or accounting and disclosure requirements thus have to imply a "crop-sharing" mechanism, i.e. a voluntary change of the property rights structure. This will increase reliability and will reduce the incentive to defect from a contract[248]. In addition, these measures can foster risk-sharing mechanisms on different levels and higher self-responsibility which contribute to a positive impact on macroprudential indicators in the Chinese banking sector[249]. Additionally increasing trust levels between market participants can change the

243 [Göbel, 2002], p.112f.

244 [Göbel, 2002], p.113

245 For more details on market signalling see [Spence, 1974].

246 See also [Varian, 1994], p.474ff.

247 [Wolfstetter, 1999], p.270

248 Compare e.g. [Göbel, 2002], p.114 and [Erlei, 1999], p.120.

249 Since it is often assumed that the agent is risk-averse and the principal is risk-neutral the optimal compensational scheme then can include an additional risk fee to make the agent bear part of the risk; see e.g. [Feldmann, 1999], p.133. In long-term contracts bonding and commitment can also help to align interest by reducing ex-post opportunism for both parties. When the principal could hire a competing agent commitment implies a principal-specific investment so that the threat of losing this money prevents him from deviating from the contract. Bonding is a mechanism related to guarantees and risk-sharing. It implies the deposition of a fee which is paid out to the principal in case of failure so that the principal has covered potential losses. This is a solution close to punishment strategies where guarantee payments are introduced for the case of non-fulfillment. In general, to avoid the pooling

outcome of economic interaction significantly[250]. Trust as social capital is an implicit contract and can contribute to the agent's motivation and efforts[251] so that mutual trust is an effective and low-cost means to align interest and to overcome agency problems. Trust can help to reduce the expectation that the contracting partner will capitalize on every opportunity to maximize his utility to the detriment of the other. Knowing about the implied risks of opportunism the parties agree on an implicit contract to trust each other in reciprocity and to live up to the contractual provisions[252]. Taken together, the contractual analysis, the property rights approach and the agency approach are the analytical instruments to identify informational and incentive problems in the Chinese banking sector. These problems are the key drivers for economic interaction within the institutional framework of the Chinese banking sector. Hence, they are vehicles to assess the impact of the listed institutions on macroprudential indicators which stand for the stability of the banking sector in the People's Republic of China.

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equilibrium the principal can also try to evoke a process of self-selection among the agents which circumvents the adverse selection problem for the principal; compare e.g. [Göbel, 2002], p.108ff. See also [Wolfstetter, 1999], p.245 and p.251 on labour markets and rationing or [Varian, 1994], p.470 on adverse selection.

250 The Utility maximization can generate different results and may induce a rules-based behavioural pattern with a preference for trustworthy behaviour; see [Göbel, 2002], p.123ff.

251 [Göbel, 2002], p.126

252 By extracting credible signals from the agent and with increasing experience with a specific agent, the principal will be able to extrapolate the behaviour. Negative experience can then end this process. The agent signals his good reputation ex-ante, e.g. by references. Ex-post he can increase the level of trust by for example by renouncing on certain fractions of his utility. Trust in the homo oeconomicus model broadens the utility spectrum of the parties since more utility generating variables enter the equation; see [Rippberger, 1998], p.147.

# III Institutional Settings in the Chinese Banking Sector

## 1. Legal Institutions and Market Participants

### 1.1. Legal Institutions and Government Agencies

#### 1.1.1. The Central Bank Law and the People's Bank of China

The Central Bank Law passed the National People's Congress in March 1995 and was amended in December 2003[253]. It was the first specific banking law in a narrow sense since the founding of the People's Republic of China[254]. It stipulates the main goal of the People's Bank of China (PBoC) as to "maintain the stability of the value of the currency and thereby promote economic growth"[255]. When necessary for the development of the financial and banking sector the People's Bank has the right to regulate, monitor and to intervene or ask the CBRC for cooperation when areas of its core competences are affected[256]. Those would be for example issues connected to reserves, foreign exchange, clearing or money laundering[257]. Article 33 stipulates that the PBoC is granted the right to ask the CBRC to conduct supervisory examinations within 30 days after its request. It is also responsible for interbank lending and bond markets surveillance[258] and can issue directives for credit prolongations[259]. While having budgetary independence the central bank forms part of the government budget and has to transfer net profits while losses are born by the government. While articles 23 and 28 promulgate that the PBoC is allowed to grant credit to banks for maturities of up to one year, it is barred from granting credit to central or local governments[260]. Through the State

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253 The legal basis of Central Bank operations can also be found in Commercial Bank Law, in the Law on Banking Regulation and Supervision, the Trust Law, the Ordinance on Asset Management Companies, the Ordinance on Foreign-funded Financial Institutions, the Law on Statistics and the Procedures on Financial Statistics. The Chinese constitution sets the broad legal framework for the banking sector. It defines China as a socialist market economy in which private property rights are formally guaranteed - with unclear implications for market participants; see article 15. This still implies a one-party ruling of the Communist Party and a private sector that is considered less important than state- or collectively-owned enterprises; see for example [Senger, 1997], p.61, [Young, 1995] and [Angresano, 1997], p.10. Banking sector laws roughly cover seven areas. Those are the structure of the banking sector and the legal position of banks; the legislation on currency issues; the legislation on the control of the financial markets and the exchange markets; the administration of the budget; legislation concerning the credit business; the legislation concerning deposits; and the legislation dealing with the payment system; see for example [Senger, 1997], p.63.

254 [Senger, 1997], p.62

255 Article 3 of the Central Bank Law.

256 See Article 31.

257 Article 32 specifies the detailed activities.

258 Article 4

259 [Hansakul, 2004 ], p.9

260 Article 29. However, on commercial bank accounts held at the PBoC the central bank may not grant overdraft facilities according to article 26.

Administration of Foreign Exchange the PBoC is in charge of the foreign exchange trade with the right to interfere with trading. Under the authority of the PBoC the SAFE promulgates directives and regulations concerning the exchange rate and foreign currency trading. Further, credit in foreign currencies, foreign indebtedness and foreign business loans as well as foreign exchange guarantees are subject to the permission of the SAFE[261]. Most importantly, the PBoC determines the interest rate structures, and decides about the minimal reserve, i.e. the statuary deposit reserves and other liquidity-relevant requirements. However, major decisions like interest rate and exchange rate changes have to be approved by the State Council so that in these cases the Monetary Policy Committee[262] of the PBoC issues only proposals and decides policy issues of lower significance. Under its chairman - the PBoC governor - the MPC discusses and advises on policy measures, target setting, and macroeconomic coordination. The State Council selects[263] its twelve members - eleven high-ranking bureaucrats, e.g. from the Ministry of Finance, the State Development and Reform Commission and the CBRC are joined by one outside financial expert[264]. To pursue its monetary policies the central bank concentrates on the interface between banks, e.g. interbank fund flows and settlements as well as the payment system. Together with the Ministry of Finance, the Statistics Bureau and other actors such as the Ministry of Commerce the PBoC provides a macroeconomic picture to the market participants which may indicate the future monetary policy. Besides these signals to the market the PBoC exerts moral suasion - or "window guidance" - on the financial and banking sector to generate support for its monetary approach. In this context banks are invited to the central bank and are informed e.g. about market distortions as perceived by the PBoC - e.g. lending bubbles or credit concentrations. Officially this advice is not binding but in fact the banks cannot afford to ignore these guidelines completely. This has partly to do with the fact that the central bank has injected foreign exchange into the banking sector in various recapitalization efforts and consequently is a shareholder or even board member in many banks, e.g. at the Bank of China and the China Construction Banks.

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261 Those are partly granted through External Debt Certificates. Since the foreign exchange regime and monetary stability are interrelated the SAFE closely cooperates with the PBC; see [Hansakul, 2004], p.10. The SAFE is also in charge of administering the foreign reserves. Those amount to more than 800 billion US Dollars currently. Its new head, Ms. Hu Xiaolian is known as a reformer who supports the easing of capital controls and replaces Guo Shuqing who was sent to run China Construction Bank after CCB's head was ousted for fraud; see The Economist, "Softly, softly", 2. April 2005, p.66.

262 Established in 1997.

263 [Laviziano, 2001], p.27

264 See for example [Xu, 2000], p.109f.

### 1.1.2. The Law on Bank Regulation and Supervision and the CBRC

The Law of the People's Republic of China on Banking Regulation and Supervision passed the 10th National People's Congress in December 2003 and complemented and amended the Central Bank Law and Commercial Bank Law, both of 1995[265]. It specifies that the China Banking Regulatory Commission with its 15 departments maintains financial stability, fosters reforms in the banking sector, aims at depositor protection and fights financial crimes. Its mandate covers all banking institutions - defined as deposit taking institutions - and all asset management companies, trust, investment, finance and leasing companies[266]. It seems to be unclear whether policy banks are covered under the term "financial business" stated in the law[267]. Hence, together with the Securities and the Insurance Regulatory Commission a tripartite approach to financial market supervision had been chosen[268]. The independence of the CBRC and its staff is reflected by the provision that staff is protected by law while performing their duties. It is explicitly stated that they should be free from interference by local governments or other government departments as well as by individuals or public organizations[269].

Prudential regulations due to the Law on Banking Regulation and Supervision include risk management[270], internal controls, capital adequacy, asset quality, loan loss provisioning, risk concentrations, connected transactions and liquidity requirements. The CBRC has to cover

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265 On the rise and fall of the financial supervisor installed by the Communist Party, i.e. the Central Financial Work Commission see [Heilmann, 2005], p.1-21.

266 Article 2 of the Law on Banking Regulation and Supervision. Analysts have complained about a regulatory vacuum concerning financial holdings which may try to circumvent barriers intended to separate the banking, insurance and securities business, see China Daily, "Banking Regulatory Body for China", 17. March 2003, quoting Wang Songqi of the Chinese Academy of Social Sciences (CASS). This discussion reflects concerns already discussed earlier concerning financial conglomerates.

267 Compare [Wan, 1999], p.204 concerning the Central Bank Law.

268 On different approaches see [Sergeant, 1999], p.183. Both the China Securities Regulatory Commission and the China Insurance Regulatory Commission were founded after the Asian financial crisis end of the 1990ies. On the CSRC and the CIRC in more detail see [Hansakul, 2004], p.10f. Due to article 13 local governments and other government departments shall provide support for the CBRC to conduct its functions. This includes the resolution of problems with specific banks, i.e. financial support, and the enforcement of actions decreed by the CBRC against illegal financial activities.

269 Article 5 of the Law on Banking Regulation and Supervision. On the other hand staff is subject to legal liabilities, either administrative sanctions or criminal prosecution, in case of misconduct or failure to adhere to internal regulation and the relevant laws; see Article 42 of the Law on Banking Regulation and Supervision.

270 This includes costing (transaction costs, risk costs, capital costs), risk-adjusted pricing, monitoring (continued analysis, risk adjustments, early warning), work out (reasoning, process controlling), portfolio controlling (limit systems, expected and unexpected loss), portfolio optimization (CVaR), and portfolio selection (avoidance of adverse selection dynamics), see e.g. Presentation of Business Development Bank to Media Representatives, 12. September 2005, Shanghai.

these fields in its supervisory approach and has in many cases already introduced specific regulations or directives. Responsibilities include on- and off-site examinations and surveillance of banks, the drafting of laws, the control of senior bank management qualification, and decisions about market entry and exit[271]. Since the rules for market entry and operation are rather vague the CBRC gains significant discretion in this case[272]. It also influences bank restructuring through its task to administer the supervisory boards of the major state-owned banks. In case of non-adherence to relevant regulations or rules the CBRC has the mandate to investigate and enforce penalization[273].

Since its foundation the CBRC has issued a vast array of regulation in many areas[274]. This includes for example rules on foreign banks, on loan loss provisioning, and rules concerning capital markets, e.g. securitization of bank assets or the issuance of financial bonds or subordinate debt. The CBRC has also issued best practices and partly decrees their implementation, e.g. a standard five-class loan classification system by the end of 2004, an annual three-percent reduction of non-performing assets[275], and mandatory capital adequacy ratios of eight percent by 2007 all became mandatory. To avoid loan concentration banks have to report loans above 100 million RMB to the CBRC. Of high relevance in this context are the loan loss provisions whose extent is stated in the Guidance on Provisioning for Loan

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271 This includes the withdrawal of licenses; e.g. in 1998 the procedures for bank closures were amended and have already been applied in the case of the investment company GITIC, credit cooperatives and the provincial Hainan Development Bank.

272 The establishment of commercial banks needs a minimum paid-in capital which varies with the type of the bank from one billion Renminbi for an ordinary commercial bank down to 100 million Renminbi for city cooperative bank and 50 million Renminbi for rural cooperative banks; see [Wan, 1999], p.206f. For the exact amounts see article 13 of the Commercial Bank Law. The CBRC then issues a business permit and the relevant industrial and commercial agency will issue a business license; see article 16 of the Commercial Bank Law. Barring competitors from the market may imply that monopolies persist; informal markets may flourish, and may foster rent-seeking behaviour in the responsible authorities.

273 For example in case of not submitting a disclosure report requested by the CBRC this may be up to 300,00 RMB due to article 46 of the Law on Banking Regulation and Supervision. The CBRC also contributes to the design of emergency proceedings for bank failures together with the Ministry of Finance and the People's Bank of China. Currently the restructuring of rural credit cooperatives is also a main topic for the CBRC; see Xinhua News Agency, “Five Major Tasks for China Banking Regulatory Commission Underway”, 29. May 2003.

274 It monitors deviation of loan classification, loan migration and conducts peer group analysis to prevent the emergence of new non-performing assets.

275 Since beginning of 2001 the Central Bank and the CBRC have increased the leeway for depreciations on non-performing loans to up to 100 percent. Before a limit of only one percent had to be adhered to; see [Moreno, 2002], p.2.

Losses[276]. While general losses cover unidentified, e.g. operational and general loan risks, special loans correspond to a specific borrower and the calculated loan loss probability reflected in the loan classification. Specific loan loss provisions are rather less common and cover losses inflicted by a state or region, an industry or a certain loan type[277]. Banks have to set aside provisions quarterly, timely and in a centralized and unified way. For special loss loans provisions the ratio is 100 percent, doubtful loans have to be provisioned with 50 percent, substandard with 25 percent and loans to be watched need to be provisioned with 2 percent. General loan loss provisions may not be less than one percent of the outstanding loan book volume - also for the pass category - while specific reserves may be set at the bank's own discretion depending on risk scenarios, probabilities and historical experience[278]. In its efforts to privatize the banking sector the CBRC for example selects domestic and international qualified investors according to self-defined standards. The recapitalization of unviable banks is conducted together with the Ministry of Finance and the People's Bank of China under the authority of the State Council. Achieving a mentality change towards better risk management and prudence in the Chinese banking sector still is a major task for the CBRC. With the resources and capacity of the CBRC still stretched the Law on Banking Regulation and Supervision itself has been symbol of an essential mentality shift away from monitoring the legitimacy of operations towards a focus on risk-awareness.

## 1.2. Legal Institutions and Financial Institutions

### 1.2.1. The Commercial Bank Law

The Commercial Bank Law[279] became effective in July 1995 and was a major step towards the commercialization of the state banking sector in the PR China. In general, every financial institution conducting business in areas defined by the Commercial Bank Law is subject to its

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276 Together with the Guidelines of Risk-based Classification of Loans. Loans here include mortgaged, pledged, guaranteed loans, overdraft facilities, discounts, advance payments for banker's acceptance drafts, letters of credit and guarantees, trade finance and call loans, etc. as stated in article 3 of the Guidance on Provisioning for Loan Losses.

277 See Article 2 of the Guidance on Provisioning for Loan Losses.

278 See Article 6 of the Guidance on Provisioning for Loan Losses. Only foreign bank branches may set aside special reserves.

279 The Commercial Bank Law consists of 91 articles in nine chapters. Chap.1 General Principles, chap.2 Foundation and organizational structure of commercial banks, chap.3 customer protection, chap.4 Basic rules for credit and other business, chap.5 Finance and accounting, chap.6 Monitoring and administration, chap.7 take-over of the bank by the PBoC and the liquidation of banking business, chap.8 Legal Liabilities, chap.9 Additional principles.

provisions[280]. To constrain policy-related lending and to ensure bank stability the law promulgates general principles for banking business, i.e. efficiency, safety, liquidity, self-sustenance and self-risk-bearing, as well as self-restraint and independence[281]. In many cases the law mirrors requirements set out by the Central Bank Law and the Law on Banking Regulation and Supervision, e.g. the freedom to determine interest rates according to PBoC rules, the requirement to deposit reserves at the Central Bank or in case of the issuance if financial bonds[282]. Accordingly, the Commercial Bank Law stipulates that banks have to file permission at the CBRC for the opening of new branches despite the fact that these have to belong to the same legal entity with the head office liable for its branches[283]. Other organizational issues such as the establishment of a supervisory board are laid down in article 18 which states that the qualified members shall especially monitor non-performing loan ratios and the development of risk-management systems[284]. The selection criteria for the other senior bank management - e.g. no convictions, especially in financial crimes[285] - reflect the goal to promote good governance and stable bank development. The goals of efficiency and independence are also reflected in the provision that no person or organization may force commercial banks to grant credit or guarantees[286]. Related lending is prohibited when it involves unsecured loans at favourable conditions which discriminate against other customers[287]. By stipulating that a borrower has usually to provide collateral, a mortgage or a guarantee the law aims at reducing lending risks[288]. Much discussed article 34 states that loans

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280 Also rural and city cooperative and commercial banks. Article 3 vaguely limits the business scope of these financial institutions to 13 areas of activities. Article 2 broadly defines commercial banks as legal persons involved deposit-taking or/and loan-granting or/and settlement-handling or "etc."-activities; compare [Macheledt, 1997], p.289 and [Wan, 1999], p.205.

281 Article 4 states the business principles for the commercial banks concerning efficiency, security and liquidity.

282 See Articles 31 and 38, Article 32, Article 45 respectively.

283 Articles 19 and 22.

284 The Company Law is also relevant for the structure of the bank. However, the Company Law is going to be amended in more than ten cases due to reports on NPC revisions; see China Daily, 5. September 2005, p.4, "Second stage".

285 The Commercial Bank Law defines financial crimes only vaguely by stating that a borrower using fraudulent means to obtain loan can be punished according to Criminal Law when his actions constitute a crime.

286 Article 41. Article 85 states that people or organizations pressuring banks to grant credit and bank staff that gives in to these pressures can be made responsible for the economic consequences and may have to cover in part or completely the resulting damage; compare [Li, 1997], p.212.

287 Bank staff and management and their relatives are covered by this provision but also the companies in which those companies work or invest; see article 40 of the Commercial Bank Law.

288 Article 36. Generally, if customers cannot repay a credit the bank can use the collateral to cover the loan principal and the interest or at least has preferential rights concerning the collateral. Article 35

should be granted “in accordance with the need of the national economy and the social development and under the guidance of the state industrial policies”[289]. However, commonly it is interpreted in a way that only wholly state-owned banks, i.e. the policy banks can be asked to provide loans to projects identified by the State-Council[290].

This idea of promoting bank stability can also be seen in the lending limits - like an eight percent capital adequacy ratio - promulgated in article 39 together with other asset-liability ratios. Here it is stipulated that outstanding loans to deposits may not exceed 75 percent, floating assets to liabilities may not be lower than 25 percent, and that lending to a single borrower may not exceed 10 percent of the bank's capital. The law, however, includes transition periods for banks that have existed before the promulgation of the laws[291]. The formally strict separation of banking and other financial business in article 43 also aims at preventing distress and contagion among banks[292]. Hence, banks are forbidden to invest in share or trust businesses, speculative property and non-bank financial institutions[293]. Since the maximum limit for interbank business is at three years[294], legislators also tried to limit this channel for contagion[295]. To buffer financial distress from the beginning, commercial banks needs a minimum registered capital of one billion RMB, urban credit cooperatives of 100 million RMB and rural cooperatives of 50 million RMB[296]. The law also states that banks have to develop and perpetually improve their financial and accounting systems[297]. However, in case of bank distress or failure Articles 64 to 72 stipulate the preconditions and procedures under which the CBRC can take control of, merge or can close down troubled banks[298].

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demands that the bank investigates the creditworthiness thoroughly considering the planned investment as well as repayment capacities and contract terms; compare [Li, 1997], p.208.

289 Compare e.g. [Laviziano, 2001], p.29.

290 And article 41states the right for financial compensation in case that losses would incur from these projects.

291 Article 39 of the Commercial Bank Law.

292 Since November 2004 Mainland branches of Hong Kong and Macao banks may engage in insurance business; see CBRC Public Notice, 1. November 2004.

293 This reflects the tripartite approach to regulation.

294 Administrative Rules for RMB Inter-Bank Transactions, extensions may only be allowed for a maximum of half of the original maturity; see article 4 of the Administrative Rules for RMB Inter-bank Transactions, published in December 2003 on the CBRC website.

295 Article 46

296 Even though the CBRC can adjust this amount it cannot be decreased below this threshold due to article 13.

297 Articles 59, 54, 51, and 61.

#### 1.2.1.1 State Commercial Banks

Since 1978 the functional constraints of the state commercial banks[299] have been gradually reduced with an increasing independence of the big four banks[300]. Still they act under the authority of the State Council and are subject to the supervision of the China Banking Regulatory Committee. According to their core capital the Chinese state commercial banks rank among the largest hundred banks worldwide and are major determinants for banking and financial sector stability in China since they account for 52.5 percent of total assets and also 52.4 percent of total liabilities in China[301]. With growth rates between 11.5 percent and 17.5 percent[302] at the big four asset growth was below average which was slightly above 19 percent for the entire banking sector, all year-on-year. Total liability growth at the state commercial banks was between 13.7 percent and 17.5 percent which was also below average of almost 19 percent[303]. This indicates a continued loss in market share due to market entries and competition. While consumer credit becomes increasingly important it still accounts for only around ten percent of the credit portfolio of state commercial banks while the remaining 90 percent corporate credits mostly granted to state-owned companies - which illustrates credit concentration[304]. Hence, while the big four have earned almost 20 percent more some analysts assume that Chinese lenders and foreign banks have experienced growth in non-performing loans especially in the categories “total loss” and “sub-standard”[305]. Reports suggest that without the recapitalizations and asset transfers the aggregated non-performing loan ratio of the big four would have increased by around nine percent in the first half of 2005 - and would not have declined by 5.45 percentage points[306]. The aggregated non-performing loan ratio in

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298 Due to the Commercial Bank Law the CBRC examines and approves mergers, divisions and acquisitions of more than ten percent which are also subject to the provisions of the Company Law; see articles 25 and 28.

299 The Industrial and Commercial Bank of China, the Bank of China, the China Construction Bank and the Agricultural Bank of China.

300 [Popp, 1996], p.43

301 The state-owned commercial banks had total assets of 19.7 trillion RMB and total liabilities of 18.8 trillion RMB at the end of Q4 2005 due to the PBoC. The whole banking sector had total assets of around 37.5 trillion RMB and total liabilities of 35.8 trillion RMB.

302 The average was 16.1 percent in 2005Q4 year-on-year due to the PBoC.

303 Figures for 2005Q3, year-on-year; see PBoC „Total Assets and Total Liabilities as of September 30, 2005”.

304 [Siackhachanh, 2002], p.5

305 Higher profitability also implies that banks are more frequently allowed to issue tier-two capital in form of subordinate debts to push up capital adequacy ratios.

306 The ICBC received support worth 705 billion RMB in June and a capital injection of around 120 billion RMB in April in the run up to the public offering. ICBC’s non-performing loan ratio was reduced by these measures from 14.41 to 4.58 percent and as a result S&P’s raised ICBC ratings for foreign

the big four has been reduced from around 15 percent at the end of 2004 to approximately ten percent one year later due to the official data[307]. Despite the various government recapitalization efforts this ratio is still far above the banking sector average of around eight percent[308]. High GDP growth rates as well as high credit and deposit growth have until now mitigated the risks associated with the high non-performing loan ratios[309]. With their current aggregated non-performing asset volume the Chinese banking system is still vulnerable despite significant improvements[310].

Overhead costs in comparison with turnover and profit ratios still are significantly higher compared to international competitors[311] even though staff and branch numbers have been reduced strongly in recent years[312]. Branch numbers vary widely with the largest network provided by the ICBC with around 24,000 branches followed by the CCB with around 14,000 and the BoC with 11,300. Since almost all banks primarily target large and profitable private and state-owned companies, margins are thin and the hardly developed credit risk management comes under new pressure[313]. While possibly bearing future stability risks this also depresses profitability so that many observers assume that the big four will only generate real positive operating profits and regain solvency in the years after 2010. As a result some

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currency credit rating to investment grade (BBB minus/A-3) while the fundamental strength was raised to D-plus from D; see among others www.scmp.com, 28. July 2005, “Asset transfer eases banks´ NPL burden” by BEI Hu. Around 246 billion RMB in non-performing loans have been shifted to Huarong Asset Management.

307 The two commercial state banks Bank of China and China Construction Bank claim their ratios to be at 4.7 percent and 3.7 percent respectively; see The Economist, “Consumer Lending in China: Safe as houses?”, 23. April 2005, p.73.

308 PBoC, 2005 Q4 data. However, the real stock of non-performing loans tends to be underestimated since loan principals are often rolled-over and interest payments are serviced by questionable financial instruments. In 1995 officially 22 percent of the loan books of the largest banks were classified as non-performing. After the Asian crisis the PBoC estimated the ratio to be at around 30 percent. However, some analysts estimated ratios of up to 50 percent of the loan books; see [Holbig, 2003], p.48. [Lardy, 1998] estimated a proportion of around 40 percent.

309 When the net inflow of deposits covers operating costs and net interest payments even insolvent banks can continue their operations for years.

310 145 percent of GDP in 2003; see The Economist, “Behind the mask, A survey of business in China”, 20. March 2004, p.17 and The Standard Hong Kong, „Bad Loans on the increase at Big Four“, 10. Januar 2003, zitiert nach Pressespiegel der www.websiteaboutchina.com/mark/market_2.htm, August 2003.

311 Around 30 percent in 2002; see [Wolff, 2002], p.107.

312 Already in 1998 the State Council decreed that staff and branch numbers of the state-owned banks have to be reduced to increase profitability ratios.

313 Private companies are the main drivers for the economic boom in China; see OECD report on China published in September 2005 and International Herald Tribune, 17. September 2005, “Top China player: Private business” by David Lague.

analysts estimate that state-owned banks such as the CCB and the BoC - after all recapitalizations - have an actual capital adequacy ratio of around six percent[314].

The example of the China Construction Bank - which went public in late 2005 at the Hong Kong Stock Exchange - illustrates the fund volume necessary to recapitalize the Chinese state lenders to an internationally competitive level. After the transfer of non-performing loans to Cinda AMC[315] worth 128.9 billion RMB face value[316] and capital injections of 186.3 billion RMB at the end of 2003, the effective transfers to CCB in 2004 amounted to 41.7 billion RMB - including a tax cut of 15.47 billion RMB[317]. The most recent official recapitalization of around 65.49 billion RMB for CCB was disclosed only at the publication of the annual report in June 2005[318]. These measures have enabled the bank to adopt internationally common loan-loss provisioning standards and capital adequacy is now stated to be at 11.29 percent. CCB's costs income dropped by 1.97 percent to 39.17 officially and return on net assets was at 17.28 percent - excluding preferential tax treatments. A pre-tax profit increase by 34 percent due to falling cost ratios, rising interest income and a growing fee-based business illustrate a positive development at the state commercial lenders - in combination with generous state aid[319]. The relatively high proportion of 16.7 percent of special mention credits is seen as a clear risk factor but the picture remains blurred since for example Morgan Stanley - one of CCB's listing sponsors - has estimated that the non-performing asset ratio for new credit is at only around 2.4 percent which would be rather low[320]. The CCB has also been granted a two-year reprieve until end-2007 to adhere to the CBRC regulation that 80 percent of the outstanding non-performing loans have to be underpinned with loan-loss provisions.

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314 Data obtained in interviews.

315 Between 1999 and 2000 these independent AMCs successively took over loans worth 1,393.9 billion RMB; compare [Ma, 2002] and [Lardy, 2001]. A report published in June 2005 by the state auditor have found mismanagement and irregularities which has cost the AMCs a combined value of 71.54 billion RMB standing for 13 percent of the audited amount of 554.4 billion RMB. These problems occurred in the disposal and auctioning of the assets as well as in investment, borrowing and collateral. Specific rules on AMCs are only drafted and are expected to be published at some time in 2006; see www.scmp.com, 29. June 2005, “Irregularities rampant at asset management firms” by Chan Siu-Sin or www.scmp.com, 5. July 2005, “Failure of AMCs forces reform” by Mark O´Neill. At the end of Q3 2005 the accumulated disposal of non-performing assets at the four AMCs stood at 7.37 trillion RMB with a cash recovery rate of 21.04 percent and an asset recovery ratio of 25.62 percent.

316 Net present value of around 64.45 billion RMB.

317 See www.scmp.com, 14. June 2005, „CCB given 65.4 Yuan fund pledge“ by BEI Hu.

318 The form of the capital injection came as future tax cuts and the waiving of dividends to the state-holding company that owned 85.2 percent of CCB.

319 In its recent annual report the bank stated a higher net interest income by 12.7 percent while loan growth was at 11.5 percent. Deposits grew by 9.2 percent.

320 See for example www.scmp.com, 27. September 2005, “CCB bad-loan worries eased” by Fiona Lau.

Mid 2005 the bank had only achieved a ratio of 63.52 percent of its impaired loan book[321]. Even though this may smoothen CCB's restructuring over time it clearly shows that risks in the loan books are evident also for the banks hailed as successful restructuring projects[322]. Also the ICBC has reported an increasing return in the intermediary business - which has been divided into nine categories[323] - to 9.71 percent of total operating revenue. The merger and closure of loss-making branches in different provinces has already lead to higher profitability. For example the ICBC had reserved 67 percent of its operating profits representing 50.17 billion RMB for loan losses and has closed more than 2,800 unprofitable branches as announced in its annual report published in June 2005[324]. Even the Agricultural Bank of China - the weakest state commercial bank - has increased interim earnings by around 36 percent in the first six months of 2005. The bank has operated beyond its original core business and has expanded for example into the credit card business to make use of the abundant liquidity in the system. While its non-performing loan ratio fell by 1.44 percentage points in the first six months of 2005 some analysts derive from the rare data that credit growth is relatively high even compared to the peer group of state commercial banks[325]. Despite this assumed growth in credit volume its ratio of non-performing loans is far above the national average at around 25 percent[326]. However, the mere size, the lingering political influence as well as the history as a state-lender slows down significantly the necessary structural and governance reforms in all state commercial banks, including the introduction of adequate risk-management systems.

#### 1.2.1.2 State Policy Banks

The separation of commercial lending and policy lending with enhanced accountability was core to the foundation of the state policy banks in 1994[327]. The management - which is recruited by the government - conducts business under the authority of the Ministry of Finance. Policy banks originally were intended to focus on financing government projects and

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321 See for example www.scmp.com, 6. October 2005, “China bank wins 11th hour reprieve on bad-loan book” by Anette Jasson and Bei Hu.

322 For example Ryan Tsang of Standard & Poor's, www.scmp.com, 3. October 2005, “Loan policy a delicate balancing act” by Tom Holland.

323 For example settlement and clearing, insurance and securities agency, management, sales and custody of investment funds, etc.

324 See also www.scmp.com, 29. June 2005, “ICBC debt issue gets approval as profit rises 17 pc”.

325 Data obtained in interview.

326 The South China Morning Post quotes Reuters and official media, 19. July 2005, “Agricultural Bank profits climb 36pc”.

327 The China Development Bank, the Agricultural Development Bank of China and the Export and Import Bank of China. Compare for example [Xu, 2000], p.195.

sectors or regions where other banks had no interest to pursue business[328]. In the last ten years they have broadened their originally narrow business scope and have in some areas become competitors for state commercial and joint-stock banks[329]. Their market share of around ten percent reflects the high degree of policy-related lending which comes on top of central and local budgetary stimuli and other policy-influenced lending from other banks. Since policy banks hardly take deposits they increasingly refinance themselves through bond issues which in part still imply quasi-mandatory placements at state commercial banks[330]. Data about assets and liabilities, NPL, profitability, Incurring losses are subsidized and liabilities are guaranteed by the government. For example the Export Import Bank of China has the explicit goal to support companies in the official "go out" strategy for which the bank has received an amount of around 5 billion US Dollars which are assumed to be taken from the foreign exchange reserves.

#### 1.2.1.3 Joint-Stock Commercial and City Commercial Banks

Joint-stock commercial banks, regional development banks[331] and the 115 city commercial banks all reflect early local aspirations to gain independence from the large state commercial banks[332] but still have different business scopes. They are mostly spin-offs of urban credit cooperatives and only the city commercial banks are still more locally bound[333]. The 13 joint-stock commercial banks are shareholding companies with a usually owned directly or indirectly by sub-national governments[334]. They are entitled to conduct business in deposit taking, credit and foreign exchange business and international transactions. The most important regional development banks belong to this group[335]. Commercial banks are not only

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328 [Xu, 2000], p.195

329 They have also successfully declined to take over the troubled loans of the state commercial banks as originally planned, see [Rodlauer, 2003], p.3.

330 For example in 1994 more than 50 percent of the bond volume was placed with the state commercial banks, a further proportion went to regional banks on provincial level, see [Homann, 1999], p.60.

331 These raise capital for infrastructure and development projects. In this context they can often capitalize on overseas Chinese from the respective province. This is the case for example at the Guangdong Overseas Chinese Bank and at the Shanghai Pudong Development Bank.

332 [Homann, 1999], p.56. There are also 54 rural commercial and cooperative banks which belong more to this sphere.

333 Compare [Wei, 2000], p.48f.

334 State-owned enterprises are often the owners of these banks. However, also Development Banks tend to have an increasing private ownership; see [Homann, 1999], p.57.

335 The Bank of Communications, China Everbright Bank, CITIC Industrial Bank, China Merchants Bank, China Minsheng Bank, Shanghai Pudong Development Bank and Shenzhen Development Bank are the best-known. The Shenzhen Development bank though is in a dismal financial position. Its capital adequacy ratio was a mere 2.3 percent at the end of 2004 with the NPL ratio at 11.4 percent. The latter

an important source of financing for small and medium privately-owned companies[336] but are also the main cooperation partners for foreign banks who want to enter the Chinese banking sector. Since 1996 the joint-stock China Minsheng Bank operates as the first private bank - including a license for foreign exchange business[337]. While the joint-stock banks more or less operate successful the city commercial peers have a large variance which makes it unclear how this sub-group can reach the capital adequacy of eight percent by 2007. They mostly have not been recapitalized with the financial responsibility not clearly divided between the central, provincial and local governments[338]. While commercial banks usually determine their lending volumes by a proportion of deposits, profitability and stability varies largely in this peer group. Hence, aggregated data only grants a limited insight. On average domestic joint-stock commercial banks have experienced a 12.6 percent growth in gross profits which was mainly due to higher demand in mortgages, higher interest rate spreads and a foreign investment boom in the eastern coastal area. The joint-stock commercial banks held total assets of 5.8 trillion RMB and total liabilities of 5.6 trillion RMB which stood for a market share of 15.5 percent and 15.7 percent respectively. Asset and liabilities both grew slightly more than 24 percent on a year-on-year basis which was significantly above average - indicating strong growth in this segment. The joint-stock banks in China have seen an increase in troubled loans in the first half of 2005 by 4.9 percent while the overall non-performing loan ratio inched down by 0.3 percent to a mere 4.66 percent[339]. The other sub-group, the city commercial banks often profit from vibrant local economies but are also subject to local business cycles which are not offset by diverging developments in other regions. Assets and liabilities at city commercial banks grew around average and this group accounted for total assets of 2 trillion and total liabilities of 1.95 trillion RMB[340]. This stands

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figure is comparatively high in the peer group of banks like China Merchants (2.87) and China Minsheng (1.31). However, since then operating profits have been growing by 12 percent and profits before provisions and taxes have risen by 13 percent pushing core capital to a still weak 3.14 percent and NPLs down to 10.7 percent, see China Daily/Business Weekly, 12. September 2005, p.12, “Outside input”.

336 [Hansakul, 2004], p.4. SMEs account only for ten percent of bank assets but stand for around 52 percent of GDP; see Presentation of the Business Development Bank to Media Representatives, 12. September 2005, Shanghai.

337 The owners are private companies which are members of the non-state All-China Federation of Industry and Commerce; see [Zhang, 1997], p.11.

338 Nine city commercial banks have foreign capital by end of July 2005 and three or four more are in negotiations with potential foreign partners. Hence, almost all of them have attracted capital.

339 See among others www.scmp.com, 28. July 2005, “Asset transfer eases banks´ NPL burden” by BEI Hu and PBoC data.

340 PBoC 2005 Q4 data.

for a market share of around 5.5 percent. With official non-performing assets ratios of 7.73 percent[341] city commercial banks also have a more problematic asset quality than joint-stock commercial banks with their ratio of 4.22 percent[342]. City commercial banks have received significant support to resolve their bad loan portfolio from local governments through sales, write-offs and capital injections. The sum is officially estimated at around 23.4 billion RMB in 2004. These measures brought down non-performing loan ratios partly by 50 percent, e.g. in Chengdu and Dalian. The high injected volumes in the last year alone stand for more than 65 percent of the clearing-up efforts for city commercial banks in the last ten years. Hence, loan provisions have been growing slower over the last months - leading also to increased net profits[343].

#### 1.2.1.4 Credit Cooperatives

Changing ownership structures tend to hamper the identification of credit cooperatives which have been growing due to their business in rural areas and with small and medium companies[344]. They provide basic deposit and mostly short-term working credit services[345] and agricultural bridging credit[346] while being gradually transformed into independent and self-responsible economic entities since 1995[347]. Deposits are taken from rural and urban private

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341 After 11.5 percent in January 2005.

342 After 4.9 percent in January 2005. PBoC 2005 Q4 data.

343 See for example www.scmp.com, 20. July 2005, “Foreign lenders flex profit muscle” by Mark O´Neill. Both groups have profited from a generally higher creditworthiness of new customers.

344 [Laviziano, 2001], p.16. For a more detailed discussion of credit cooperatives in the rural area of Sichuan see [Lux, 1998].

345 Up to six months; long-term engagements have to be syndicated with state banks or have to be approved. Loans are usually collateralized.

346 While the Chinese government increasingly focuses on rural credit cooperatives to fight poverty the subsidized loans under a partly liberalized interest rate regime still reflect an old-fashioned “agricultural credit approach” where subsidized lending was adopted to promote goals such as rural welfare, food security and to compensate for urban- and industrial-centric policies in developing countries. With only little positive results of this traditional approach to rural finance, reforms concerning the interest rate, the chaotic ownership structures, education and infrastructure are core to the reform of the rural financial sector. Lending based on economic criteria and with liberalized interest rates in the rural areas may help to overcome the restrictive lending policies of banks since then they would have incentives to substitute the informal credit sector which anyway charges higher interest rates. In these areas banks can contribute through intermediation to smoothen investment and consumption decisions. Otherwise the costs for fiscal policies may rise immensely and if banks are forced to operate under these conditions this might further undermine their profitability.

347 With the dissolution of the public communities the rural credit cooperatives are increasingly in corporate or private ownership. In this case, however, as commercial banks they do not fall under the exception from interest rate deregulation for cooperatives and are thus subject to the regulated interest rate regime of the Central Bank; see [Homann, 1999], p.54f.

households and private enterprises to refinance the credit business[348]. The latter can be determined as a proportion of deposits[349]. Credit cooperatives have been granted relatively more degrees of freedom concerning interest rate structures and a more self-regulatory approach[350]. Even though competition among urban cooperatives is fierce so that their number has been limited by licenses, the financial and governance structures of rural credit cooperatives are by far more deplorable. They are usually far from real cooperative organizational and control structures and have severe governance problems despite the fact that their managers need work experience of at least ten years or an economics degree[351]. Additionally, access to the nationwide payment systems is still not realized for some cooperatives[352].

Today 681 urban and between 20,000 and 30,000 rural credit cooperatives operate under the supervision of the CBRC. While many urban cooperatives turned into city commercial banks, some applied to become rural cooperatives due to the recapitalization efforts of the government for rural cooperatives. In this project 29 provinces restructured their rural credit cooperatives into types of provincial holding associations and subjected them to performance criteria[353]. During this process the PBoC has issued five tranches of special central bank bills amounting to 59.6 billion RMB to recapitalize rural credit cooperatives in 916 counties[354]. This measure became necessary since an estimated one third of the rural cooperatives were in fact insolvent due to ratios of non-performing loans of up to 50 percent[355]. Despite rural credit cooperatives are eligible for tax relief or exemptions[356] their capital adequacy ratio is now estimated to be only slightly above two percent - compared to a miraculous minus eight percent before the PBoC measures[357]. So while rural cooperatives account for around ten percent of the country's deposits their non-performing loan ratio is at an official 17.5 percent

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348 [Tong, 1999], p.57

349 Urban credit cooperatives cannot lend more then 75 percent of their deposits and they cannot exceed the ceiling set by their parent cooperative.

350 For example in 1990 the Joint Cooperative of Shanghai was attributed the competences to admit new members, set credit ceilings and audit their members while being responsible for the accounting procedures.

351 Normal staff needs experience of five years.

352 See already [World Bank, 1995], p.118ff.

353 Tibet has no rural credit cooperatives and Hainan did not join the pilot.

354 For more details see PBoC China Monetary Report Q1, 2005, p.38.

355 See for example [Hansakul, 2004], p.5

356 Concerning income and business tax. They are additionally entitled to central bank lending or financing via specialized central bank bills. The government also grants subsidies for rural credit cooperatives with inflation-indexed deposit business for resulting extra payments.

with an average capital adequacy ratio of 2.49 percent[358]. In 2003 urban and rural credit cooperatives had combined market shares of around ten percent in assets and liabilities with rural cooperatives around nine times as large as their urban counterparts[359]. This data suggests that rural cooperatives tend to be rather inefficient financial intermediaries while their urban counterparts are more successful. For example the Shanghai Country Commercial Bank has reorganized into a bank incorporating some 4,000 staff and 331 outlets in Shanghai. Also in Beijing the rural credit cooperatives have transformed into Beijing Rural Commercial Bank. This indicates that commercialization is more difficult in rural areas, e.g. due to a lack of qualified staff.

#### 1.2.1.5 Non-Bank Financial Institutions

The group of non-bank financial institutions has gained weight over the last years. Trust and investment companies have played and important and not always positive role in regional development in the last decades. Recent restructuring plans for the China Postal Savings and Remittance Bureau attribute new importance to this player while especially financial conglomerates may have an increased impact on banking sector due to a lack of regulation or coordination between the regulators[360]. Today, however, trust and investment companies together with financing and leasing companies are still the main players in the market of non-bank financial institutions[361]. Non-bank financial institutions - excluding the postal system - had a market share of around three percent in 2003[362]. Established in the 1980ies more as a by-product of fiscal decentralization they have contributed to local economic development especially in coastal areas by raising money from local government's extra-budgetary funds[363],

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357 Information obtained in interviews. The central government has injected around 169 billion RMB into China's around 32,854 rural credit cooperatives since mid 2003.

358 According to official data quoted in www.scmp.com, 26. August 2005, “Credit union shift aids ANZ plan”.

359 CBRC data

360 The Postal Savings System in 2003 had assets of 8.984 billion RMB and a market share of 3.3 percent.

361 Postal Savings Banks are difficult to categorize but are especially strong in the deposit business. Originally launched to collect the high amounts of liquidity in the population they expand their business scope despite technological pitfalls and problems with the nation-wide postal network; see e.g. [Popp, 1996], p.64.

362 CBRC data

363 Frequently local governments or agencies extra-budgetary funds were channelled in the TICs to finance local priority projects. Others raised funds through overseas bond issues such as the China International Trust and Investment Corporation.

deposits or share issues to domestic investors as well as in international financial markets[364]. In fact they are a combination of western investment companies and development banks based on cooperative or clan principles[365]. Their local focus, flawed governance and a relationship-based lending approach has often contributed to excessive lending and overinvestment[366]. In the 1990ies high risk-taking in refinancing resulted in maturity mismatches and failures[367] which induced the PBoC to order restructuring, closures and divestments from the securities markets.

When a new postal bank eventually emerges from the restructuring of the China Postal Savings and Remittance Bureau the new institution would be the fifth-largest bank by deposits[368]. This would make it smaller only to the big four commercial banks - with the advantage that it has no loan business and hence no non-performing loan portfolio. A large proportion of the funds of the postal system so far are held with the interest-bearing accounts at the PBoC. Hence, only when this postal bank with about 36,000 branches - two-thirds of it are in rural areas[369] - would broaden its business focus it may become subject to closer supervision. Contrary to this, the regulatory environment for non-financial institution lead conglomerates is currently rather opaque. While some financial conglomerates such as CITIC Industrial Bank are monitored by the CBRC others such as Ping An have to be supervised in coordination with the China Insurance Regulatory Commission. Others such as the subsidiary of the industrial manufacturer DeLong - i.e. a non-financial institution lead conglomerate - are currently not subject to official supervision by the three authorities CBRC, CIRC and CSRC[370]. A further bridge between the three different areas of banking, insurance and securities was build when the ICBC won approval in June 2005 by the CSRC to form the first

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364 Their borrowing from e.g. state commercial banks in interbank markets is also significant which could raise the risk of contagion. Being similar to the Japanese investment vehicles called "juzen", trust and investment companies could also contribute significantly to an acute banking crisis as have the juzen in the 1980ies and 1990ies in Japan. Contagion through the banking sector is thus possible in case of default and because many trust and investment companies are actually bank-owned. On contagion and TICs see [Tong, 1999], p.63. Among those is e.g. the ICBC TIC wholly-owned by the ICBC and founded in 1985 to support industrial development in textiles, printing as well as light and heavy industry.

365 [Tong, 1999], p.60ff. The idea of development is combined with the principle of family ties, see [Popp, 1996], p.59.

366 See [Arayama, 2000], p.149. Their macroeconomic impact was rather pro-cyclical; see [Kumar, 1997], p.1.

367 Such as the second largest trust and investment company, the China Agribusiness Development Trust and Investment Corporation.

368 This would put another nine percent of the country's deposits under CBRC supervision.

369 See www.scmp.com, 29. July 2005, "Postal bank a step closer" by BEI Hu.

370 China Banking Regulatory Commission and its counterparts for insurances and securities.

bank-invested fund management company. After its completed registration and after obtaining the fund management license the banking and securities business is going to be related much more with an increasing number of banks active in fund management. Several dozens of fund management companies already operate - managing growing net assets of around 440 billion RMB in mid 2005[371].

### 1.2.2. China's WTO Accession and Foreign Banks

Since the relation between Chinese law and international laws and contracts is not always clear[372] the common interpretation grants international treaties and agreements the same rank than national statutes - implying a direct application[373]. Chinese court decisions also reflect the principle of priority of international accords over specific Chinese laws[374] and it seems to be widely undisputed that the WTO provisions are applicable directly to the Chinese banking sector. Consequently, by December 2006 China has to open its banking sector completely. Until then the banking sector has to be gradually opened for foreign players[375]. However, the "Regulations on the Supervision and Administration of Foreign-capitalized Banks" may in part be relevant beyond December 2006. This regulation and other specific rules concerning geographical restrictions, conduct of RMB business, opening of branches, and bank refinancing, hamper foreign bank development significantly.

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371 See www.scmp.com, 7. June 2005, "Bank wins nod for fund venture".

372 The State Council can sign treaties and agreements with other states due to article 89. The Standing Committee of the National People's Congress decides on he ratification and abrogation of international agreements according to article 67 of the Chinese constitution. The president then acts accordingly to the decisions of the Standing Committee and ratifies or abrogates the treaty under article 81. The 1990 Law on the Procedure for the Conclusion of Treaties promulgated by the Standing Committee of the National People's Congress specifies the procedures for negotiations, signature, ratification, acceptance, approval and accession.

373 Despite in Chinese law so far no separation between self-executing and non-self-executing treaties exist some scholars assume that international agreements can only be applied in China after being transformed into municipal law. Some treaties then first have to be transformed into national law which is explained by the existence of supplemental legislation existing in some cases. Hence, international treaties in China, e.g. concerning civil and trade laws, are generally applied directly. Even though in a very limited way international practices can fill the gap if neither national laws nor international treaties elabourate on a specific issue. As part of the international law, foreign judgments and arbitration can also be discussed in its applicability for the Chinese law system. The 1991 Civil Procedure Law grants the possibility to account for such institutions. China has also acceded international treaties such as the 1958 New York Convention and the 1965 Washington Convention. Hence, China has had to reinforce numerous foreign judgments and arbitrations; see [Shao, 2002], p.198ff.

374 On a more detailed discussion see [Shao, 2002], p.201ff.

375 Since 1992 foreign banks were allowed to operate in coastal cities outside the special economic zones while the relevant regulation only passed the State Council in 1994. These were the Regulations of the PRC for the Administration of Foreign Investment Financial Institutions.

Until the end of 2005 full RMB service was allowed in only 25 cities for foreign banks[376]. Still some business areas like the credit card business can be only entered with a Chinese partner while others such as car financing were opened immediately after accession[377]. Services like insurance have followed since beginning of 2005. Understandably, foreign banks have to give up their preferential tax treatment concerning their RMB business when they fully enter this business area. In 1996 it was decreed that foreign bank's RMB liabilities should not exceed 35 percent of their foreign exchange liabilities which links the RMB business to growth in the foreign exchange business.

In general, administrative, capital, liquidity and reserve requirements for foreign banks relatively strict compared to their Chinese counterparts and international standards. To set up a branch foreign banks have to be subject to supervision in their home countries, need a minimum asset size of 10 million US Dollars[378], and have to have operated a representation in China for at least two years. The additional requirement to provide working capital from 100 to 500 million RMB per branch reduces the expected return on equity. However, a former mandatory interval for setting up new branches was abolished and re-applications for new branches have been facilitated[379]. Foreign banks have to provide a minimum capital for branches for RMB business of 400 million RMB and in Sino-foreign joint-ventures of 200 million RMB[380]. Each branch of a foreign bank has to maintain a balance of not less than 30

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376 Seven cities in December 2005 were added before schedule, e.g. Harbin. Geographical restrictions are also phased out at the end of 2006. Further, in the securities business minority shareholdings of foreign investors are allowed which can pursue fund management under the same conditions as the local fund managers. In the securities markets after three years foreign investment banks are allowed to found joint ventures with foreign shares not exceeding 33 percent. These can engage in underwriting shares and securities. Foreign securities companies can directly conduct B share business and their representative offices can become members of the Chinese stock exchanges. For fund management and the insurance business there are also time schedules, including joint venture fund companies upon accession with a ceiling of also 33 percent of foreign capital. In the insurance sector immediately after accession foreign life insurers are allowed to hold up to 50 percent of joint ventures while for example reinsurance in completely opened upon accession. The foreign exchange business is still highly regulated but is moving fast so that some foreign banks have been even admitted as market markers.

377 Since 1998 car loans have been growing by 200 percent per year to 183.3 billion RMB which stands for around 10.2 percent of total consumer credit. 100 billion RMB of these are troubled and banks are now increasingly confronted with repayment difficulties, see www.china.org.cn, 23. August 2005, “100 Mrd. faule Autokredite”.

378 Balance sheet volumes of the foreign parent bank have to exceed 20 billion US Dollars for a branch and 10 billion for a subsidiary.

379 The time interval between rejection and reapplication was abolished.

380 Down from 500 and 300 million RMB respectively; see Reuters Online, 5. December 2005, “China öffnet Tür für ausländische Banken schneller als gefordert”.

percent of its working capital at a local bank approved by the central bank[381]. Bank regulation suggests that each single foreign bank branch has to comply with a minimum liquidity ratio of 25 percent on a daily basis, a maximum foreign currency deposit ratio of 70 percent of total foreign currency assets and a minimum RMB capital adequacy of eight percent. This is often interpreted as conflicting with a consolidated supervisory approach since additionally headquarters have to guarantee for the liabilities of branches and are not considered to be independent legal entities.

Refinancing in the interbank market is constrained due to regulatory constraints while attracting RMB deposits is hampered by regulated interest rates and restrictions concerning individual deposits. The interest rates are completely liberalized in this market and up to negotiation between the parties[382]. However, only 40 percent of a bank's liabilities may originate from the interbank market at the end of each month[383] and the interbank market is a relatively expensive source of refinancing with short maturities and high interest rates[384]. To circumvent these strict regulatory hurdles and since regulation for Sino-foreign joint ventures is less strict, many foreign banks have invested in stakes in Chinese banks in the last years. Here, they are allowed to purchase stakes of up to 25 percent or as single investors of up to 20 percent[385]. These limits are tested currently and may be increased in 2006 or 2007[386]. Foreign strategic investors have to purchase at least five percent of a bank and have to hold the shares for at least for three years.

Traditionally, foreign banks conducted mostly trade finance and foreign exchange business with foreign companies operating in China and Chinese companies with overseas operations - including joint-ventures and wholly-owned foreign companies[387]. With the reforms at the end of the 1970ies especially banks which had been admitted before started expanding rapidly in business scope and regional outreach[388]. Sino-foreign joint-ventures experienced above-

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381 In case of RMB the capital can be deposited in government bonds.

382 Article 5 of the Administrative Rules for RMB Inter-bank Transactions, published in December 2003 on the CBRC website.

383 However, banks that had different refinancing patterns when the regulation was enacted may generally bring down this ratio until December 2006; see article 6 of the above quoted Administrative Rules.

384 The difference between deposit and interbank interest rates has been around three percent for long periods after WTO accession.

385 [Holland, 2003], p.42

386 See www.scmp.com, 23. June 2005, „Ownership break for foreign banks“.

387 [Tong, 1999], p.52f.

388 These were the Hong Kong and Shanghai Banking Corporation, the Standard Chartered Bank, the Bank of East Asia and the Overseas Chinese Bank. Deposit and credit business in foreign currencies for companies with foreign business added to traditional trade financing. Since 1986 interbank business and increasingly the derivative business gain importance. These possibilities were opened for Shanton,

average growth due to their ability to attract Chinese customers and fewer regulatory constraints[389]. Hence, increasingly foreign banks try to invest and build business ties with first- and second-tier Chinese banks to improve market access.

The profit situation of foreign banks is mixed with some institutions generating significant positive operating profits and others still suffering from the high market entry and regulatory costs. Foreign banks in regions like Shanghai have been largely profitable, especially those who arrived early and have secured a license for local currency loans in which interest rate margins are higher than in foreign currency loans. In general, however, balance sheet volumes and market shares remain usually small so that economies of scale cannot yet be capitalized upon. In particular, the large capital requirements for single bank branches depresses profitability so that only in segments like foreign currency credit reasonable credit volumes can be reached. Foreign banks which want to cover all business areas possible after 2006 December have to provide additional surplus capital of 500 million RMB per branch. To operate profitable banks need a credit portfolio between eight and ten times this amount, i.e. four to five billion RMB which by far not every bank has generated. Further, high costs in cities, the lack of rule of law and other hidden risks depress profits in many banks and companies[390]. Many foreign banks have thus not reached a profit break-even and - while waiting for further liberalization - do not display clear business strategies. Some smaller international banks which have accompanied corporate customers to China are already withdrawing while the others tend to focus on specific location and segments for the time after December 2006[391]. In this context the geography and the relationship-orientated and paper-bound banking business in China play an important role for foreign banks so that they have realized that they will not be able to offer full-range services across the country with a small branch network. However, some large foreign banks generate positive and better than expected profits in China[392]. In general, foreign banks have contributed to attracting investors from abroad, have introduced more sophisticated management and risk-management methods,

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Shenzhen, Xiamen, Zhuhai, Hainan and Shanghai as well as further coastal and inland cities; see [Laviziano, 2001], p.19ff. Representations mostly were allowed to prepare business; see [Putzke, 1998], p.56.

389 [Laviziano, 2001], p.20 und [Homann, 1999], p.109.

390 See among others FAZ, “Chinesischer Unternehmer wehrt sich gegen Enteignung“; 23. August 2003, p.11

391 Interviews and see for example [Wolff, 2002], p.109ff.

392 For example at HSBC China business profit before tax was at 1.25 billion HK Dollar of which 700 million stem from its share in Bank of Communications as reported in August 2005.

and increased the competition also among Chinese banks while their presence simultaneously fostered capital market development.

Total assets of the 225 foreign banks[393] at the end of 2005 accounted for approximately 84.5 billion RMB which stands for a market share of slightly more than two percent. Current growth rates are, however, significantly above average with a year-on-year increase of around 30 percent. In late 2005 licenses for internet banking had been obtained by 15 foreign banks, 41 were allowed to conduct derivatives business and five had the permission to offer custodian services for qualified investors. In comparison, at the end of 2000 178 foreign banks had an aggregated total asset volume of 34.6 billion US Dollars which, however, also stood for a market share of around two percent. In certain areas such as foreign exchange loans foreign banks have larger volumes with 28.5 billion US Dollars. Their market share in the entire foreign exchange business is still only at around 0.5 percent and a volume of 128 billion US Dollars[394]. This illustrates the difficult situation for foreign banks but also their future potential in liberalized markets. The non-performing loan ratio of foreign banks in China is at only 1.05 percent[395]. For example, foreign banks in Shanghai have increased their profits by almost 70 percent in the first half of 2005 while assets grew only by 13.3 percent[396]. This positive development is perhaps due to the broad range of products - they provide approximately 100 different products and services - while Chinese banks offer usually around one third of that range[397]. However, reports indicate that the non-performing loan ratio at foreign banks went up by around 25 percent to a still low 1.14 percent in the first half of 2005[398].

The specific challenge for foreign banks when buying stakes in Chinese counterparts is the lacking possibility to assess the true value of a bank due to accounting problems - and multiple balance sheets. Nevertheless, foreign banks are rushing into China. At the end of 2005 more than 15 Chinese banks already had 19 foreign investors who provided around 15 percent of the domestic bank's capital base[399]. Among the most significant players are the

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393 Branches and subsidiaries.

394 [Wolff, 2002], p.98

395 CBRC 2005Q4 data

396 Compare for example www.scmp.com quoting Reuters and official media, 19. July 2005, “Agricultural Bank profits climb 36pc” and www.scmp.com, 28. July 2005, “Asset transfer eases banks´ NPL burden” by BEI Hu.

397 CBRC data and data from interviews.

398 See among others www.scmp.com, 28. July 2005, “Asset transfer eases banks´ NPL burden” by BEI Hu. Around 246 billion RMB in non-performing loans have been shifted to Huarong Asset Management.

399 Liu Mingkang at the 17th China-ZS Joint Economic Committee.

HSBC, Citigroup, Temasek, Newbridge Capital, Bank of America and Royal Bank of Scotland. Some investments stand out either in size or in their political importance. Obviously, the shareholdings in three of the big four state commercial banks belong to this category and have been subject to intense interpretation. Others, such as the 19.98 percent investment of Newbridge Capital in Shenzhen Development Bank are interesting since the foreign investors is actually controlling the bank management due to the largest single shareholder status and fragmented ownership structure - which was a first in the Chinese market[400]. In even other cases negotiations continue to give away more than the allowed 20 and 25 percent respectively due to problems of single banks, e.g. the Guangdong Development Bank. Here, foreign institutional investors for the first time competed for an 80 percent stake in January 2006[401]. The lack of management control, transparency and governance are posing significant risks to foreign bank entry. Compared to the resulting risks in even the large banks pricing is heavily discussed. While Chinese politicians and media complain about the low prices for Chinese state lenders some international observers think that an extrapolated market capitalization of around 67 billion US Dollars for China Construction Bank would not account for incorporated risks[402].

## 2. An Institutional Analysis of the Chinese Banking Sector

### 2.1. Formal Market-Regulating Institutions

#### 2.1.1. Formal Preventive Market-Regulating Institutions

##### 2.1.1.1 Competition

The degree of competition and bank performance is strongly influenced by entry barriers, market structure and market conduct. As a result of a high extent of regulation barriers to entry in the Chinese banking sector are comparatively high. Not only foreign banks are subject to severe constraints in geographical expansion, business scope and financial

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400 Shan Weijian, a Chinese national as a managing partner of Newbridge has obviously contributed to this positive outcome for the company due to his political backing from senior Chinese politicians; see The Economist, “China's patient crusader”, 14. May 2005, p.66.

401 Guangdong Development Bank is financially weak and in need of capital and management expertise. Citigroup, Societé Générale, and ABN Amro together with Ping An bid for the stake in a step that is interpreted by analysts as a pilot project to investigate whether foreign ownership would improve profitability, governance and performance of the Guangdong lender. At the end of 2005 around 22 strategic international investors are invested in China accounting for around 15 percent of the total equity capital of Chinese banks; see Welt am Sonntag Online, 30. December 2005, “China öffnet Bankenmarkt“ by Christiane Kühl.

402 For example market capitalization is almost double than that of Deutsche Bank while CCB's balance sheet volume is not even two-thirds of Deutsche Bank´s.

requirements as discussed before. Also new banking licenses for new banks - especially with private or mixed ownership structures - are hard to obtain[403]. The market structure is further distorted by unclear policies of market exits. Unviable banks have only been closed in a minority of cases and clear criteria for closure or government support are not extractable so far. The predominant strategy has been to merge unviable banks with other institutions either with or without immediate financial compensation. The still large proportion of government-affiliated banks - both on the national and the sub-national level - prolongs non-economic goal-setting for the banking sector and results in distorted expectations concerning the business behaviour of banks in general. Market opening has induced fierce competition of international and domestic banks in many segments so that banks have partly become mere price-takers in recent times. The struggle for market shares has pushed down market prices for bank services and products so that those often do not reflect risks properly. In some cases large and profitable borrowers tend to circulate information at which rates they are willing to borrow and implicitly or explicitly invite banks to make according offers. All players including the state policy banks try to get hold of lucrative business segments and seem to pursue rather similar business strategies so far. Only slowly some banks start to target small and medium enterprises. However, due to lower associated risks, potential government backing and long-standing relations credit facilities are still mostly accessible for large and profitable private and state-owned enterprises according to a "prime customer" concept[404]. Price competition has become more of an option for banks due to interest rate deregulation but is still rare among the state commercial banks and is generally still hampered by regulatory constraints. In this situation economies of scale gain importance which poses problems to both smaller banks and foreign market participants who are not keen in taking Chinese risks in their portfolio. Market conditions seem to display inadequate risk spreads which indicates a high degree of competition and makes market entry risky and - theoretically - less attractive. The situation induces bank to either compete in prices or to look for new business opportunities with higher margins. Many foreign banks for example try to capitalize on their expertise in specific areas such as asset management and investment banking to avoid high risk-taking[405]. However, future prospects and a lack of investment alternatives often

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403 The applications of private banks, e.g. supported by private companies, are still pending at the CBRC.

404 For example end of the 1990ies up to 97 percent of all credit facilities went to large state-owned companies; see [Laviziano, 2001], p.29.

405 The Provisional Regulations on Intermediary Business of Commercial Banks state that after permission of the CBRC commercial banks can broaden their business scope to derivatives, securities, investment fund trusteeship, as well as information and financial consulting; see [Tenev, 2002], p.62.

force banks to compromise on net interest margins which are still the single largest contributor to most bank's profits an increasing importance of fee-based income[406]. The business strategies and conduct of many banks have both supported the growth of informal credit markets and the fragmentation into rural and city financial markets which hamper financial intermediation, capital allocation and economic growth. Even though the Commercial Bank Law prohibits unfair competition[407] the strong competition in the absence of adequate regulation, qualified staff and functioning risk-management systems has already lead to lenient credit policies and further long-term stability risks. And obviously, competition has changed the profit situation of many banks significantly[408] fostering efficiency and the application of economic and commercial criteria while depressing profit margins in an over-banked market where market exits are rare. The number of branches and the associated network-control costs are an obvious problem. Those come on top of the costs incurring due to a lack of governance and control. A further consolidation is inevitable and already underway and the competitive conditions will increasingly imply that unviable banks have to be closed by the CBRC, probably within the next five to ten years.

#### 2.1.1.2 State Ownership

Despite their formal independence a large part of the Chinese financial sector is still directly or indirectly controlled by either national or sub-national governments[409]. This includes the state commercial and state policy banks, most commercial banks as well as city and regional development banks. It also applies at least to the two largest conglomerates, China Everbright Group and Holding and the China International Trust and Investment Corporation which owns CITIC Industrial Bank[410]. Since ownership rights have been transferred to different actors in recent years, ownership structures tend to be more and more complex and mixed. While state-owned enterprises are administered through commissions on the national and sub-

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406 Also large foreign banks such as Citigroup are subject to these market terms, see for example the financing of Johnson Electric or Kingboard Chemical Holding deals. For more details see www.scmp.com, 15. September 2005, “Banks settle for the crumbs as firms feast on a banquet of buyouts” by Louis Beckerling.

407 See Articles 9 and 47.

408 On ownership structures and performance see [Gardener, 1991], p.34ff.

409 Legal person shareholders have retained much influence over the last years. In some cases a “one-shareholder-dictatorship” has been criticized in this context since minority shareholder rights hardly exist. In recent years the state still had direct average shareholdings in the corporate sector of roughly 35 percent, legal persons around 25 percent and other shares, mainly A-shares account for around 40 percent. Legal persons tend to control around 40 percent of the companies; data from interviews.

410 The latter two are wholly-owned by the central government.

national level - e.g. through the State Assets Supervision and Administration Commission[411] - government assets in the banking sector only recently have seen similar institutionalization efforts. The Central Huijin Investment Company has evolved under the auspices of the central bank to ensure an adequate return on capital while making sure that corporate governance regulation is adhered to. Through Huijin the government holds its shares and is represented in the boards of state-owned banks such as the Bank of China. Its own board consists for example of members of the PBoC, the CBRC and the Ministry of Finance while the money for investments and recapitalizations comes from the central bank's foreign exchange reserves.

Western-style private banks still do not exist in China. For example, in June 2005 the application of 16 large private companies in Chongqing to set up a private bank was rejected by the CBRC[412]. The only banks which are privately owned are China Minsheng Bank and Zheshang Bank which have a majority of private capital holders but whose president is appointed by the supervising authorities. The lack of private banks is problematic due to the capital need of private companies which are often not served by state-controlled banks. In fact, the strong debt-reliance of Chinese companies has increased the possibility and the size of managerial perks and rent-seeking while decreasing corporate value[413]. This suggests that in the specific Chinese case external financing has not yet enhanced market discipline and corporate governance so that ownership structures and control gain importance[414]. It also seems to be the case that the internal financial integration has decreased during the 1990ies which some analysts attribute to government interventions aiming at inefficient capital reallocations[415]. To address these inefficiencies privatization efforts have been undertaken in the form of public offerings, institutional investor schemes or company stake holdings. However, the limited success of stock markets has not helped privatization in the last years despite some recent offerings such as the Hong Kong IPO of CCB were rather successful - primarily for the government. The foreseeable floatation of large volumes of government-related shares has for long depressed stock markets which have only been supported by the

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411 SASAC was founded in April 2003 to address issued linked to the separation of ownership and regulation. It is headed by Li Wei, the former Vice-chairman of the CBRC responsible among other for the reform of the rural credit cooperatives.

412 The CBRC stated a lack of a qualified non-mainland investor and a lack of information about senior personnel; see for example www.scmp.com, 7. June 2005, “Regulator rejects Chongqing plan for private bank”.

413 Especially, when both lender and borrower are state-owned, the probability of asset-stripping increases.

414 Some analysts derive a correlation between government ownership, governance failures and lower asset quality; see [Tian, 2005].

introduction of the CSRC plan for their floatation[416]. Since the state often retains control of the majority of shares and votes in floated companies the value of the bank is reduced while trading remains constrained in many ways.

#### 2.1.1.3 Accounting and Disclosure Requirements

The accounting standards published by the CBRC are basically similar to the International Accounting Standards and include e.g. provisions on rotation of auditors. The general structure if the Chinese accounting system consists of three layers. The so-called accounting standards describe the basic accounting principles which are at the top. The regulations of the Ministry of Finance - which include more operational guidelines - form the second level. The third level is formed by the interpretations of the standards and regulations. The relevant accounting requirements for financial institutions were issued by the Ministry of Finance in the years 2000 and 2001[417]. Basic accounting practices for domestic and foreign banks can be found in the Accounting System for Financial Enterprises of March 1993[418], the Law on Accounting[419] and the Commercial Bank Law. These provisions reflect the General Accounting Standards for Enterprises which became effective in July 1993[420]. Developed by

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415 See recent World Bank and IMF research, [Boyreau-Debray, 2005].

416 See section on capital markets.

417 The General Financial Rules for Companies (enacted in July 1993) are set out to state the true financial status of the company, to protect the rights of the shareholders and to calculate the tax payments. They are accompanied by specific regulations concerning the accounting of Chinese financial institutes. Due to the latter the accounting system for financial institutes is structured in five chapters including accounting principles for the main business activities, account structures and explanations and explanatory notes of the accounting. The balance sheet has to be handed in within three months after the end of the business year ending on 31. December. The standard currency is the Renminbi, only when a significant part of the business is in foreign currencies those institutions may choose another currency. Main business activities are credit and deposit business, shareholdings, trust and equity business as well as leasing and fund activities. Obviously banks cannot pursue activities in all those fields due to regulatory restrictions. Maturities and interest rate calculations have to be shown. Deposits are defined as assets taken from private and corporate customers while they are accounted for differently by origin and maturity. Short-term deposits have maturities of less than one year while long-term deposits have maturities of one year or more. For a detailed plan of accounts see [Macheledt, 1997], p.299.

418 The Auditing Law which enforces the implementation of auditing standards also helped to investigate and sanction corruption cases.

419 In its reformed version of December 1993, enacted in Mai 1985. On the traditional fund-driven accounting system since 1949 see [Macheledt, 1997], p.292f.

420 The Ministry of Finance Accounting Department and the National Accounting Standards Committee are main drivers. Deloitte was hired as a consultant and provided research on several reference countries. IAS accounting standards were not considered to be adopted without adjustment. This was probably due to political reasons since China assumed that economies in transition would need to adjust specific provisions of the IAS. Further, the different traditions and language problems aggravated the

the Ministry of Finance and the central bank this framework applies not only to banks but also to other financial institutions such as credit cooperatives, trust, investment and leasing companies, including foreign banks and Sino-foreign joint ventures[421]. Additionally, foreign banks are subject to special regulations and directives concerning the administration of financial institutes with foreign shareholders[422]. The Corporate Tax Law and its directives also apply to foreign and domestic banks[423]. In the General Accounting Standards for Enterprises of 1993 general principles and measurement conventions such as the accrual basis, consistency, prudence and materiality are found in addition to general assumptions[424]. This reformed accounting system has abolished the "cookbook" accounting system applied in the planned economy[425]. Provisions on loan-loss provisions and the accrual of interest on loans delinquent for more than 90 days were partly amended. Under the current framework reserves for loan losses can be established depending on the individual risk or the general risk

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adoption of IAS standards. Considering the timing and sequencing provisions helping companies to expand or attracted foreign investment have been published earlier than provisions which e.g. bear fiscal consequences.

421 Since 1998 the CSRC is in charge of and responsible for the regulation and supervision of the securities markets and has a large independent budget from fees on trading. The securities markets still is suboptimal due to the political control of issuances and the administrative pricing of public offerings. The main problems is the weak governance and the lack of rule of law since corruption in form of insider information, manipulations, and delayed or false disclosures undermine trust and credibility of the capital market and the whole financial market including banks. The CSRC has two tasks transferred by the government. First it has o maintain stability in the capital and securities market and second it has to support the industrial and economic policies of the government. These tasks may well be conflicting in the short-run.

422 Those are the Zhonghua Renmin Gongheguo Waizi jinrong jigou guanli tiaoli enacted in April 1994 and the Zhonghua Renmin Gongheguo Waizi jinrong jigou guanli tiaoli shishi xize published in April 1996.

423 [Macheledt, 1997], p.303

424 Like the going-concern assumption. The statistical requirements of the CBRC cover the policy-related and state commercial banks, city and other commercial banks, urban and rural credit cooperatives, non-banks and foreign financial institutions, post-saving institutions and the asset management corporations. The information is either directly transferred to the headquarters or is collected and proceeded by the branches of the CBRC. The accounting standards of both the Central Bank and the CBRC are harmonized with the International Accounting Standard.

425 These old provisions included regulations on loan loss reserves which were limited to one percent of the outstanding loans qualifying for loan loss provisions. These reserves were required only for uncollectible loans. They did not require reserves on secured loans, trust loans and interbank loans. Hence, the true risks implied in the bank business were not revealed by the old standards. These problems were contributed to by the provision that interest rates on delinquent loans had to be accrued for three years which generated artificial income which was taxed at tax rates of up to 55 percent; see [Watt, 1997], p.318.

assessments for the whole loan book[426]. To enforce the implementation of these standards the CBRC has set out monthly reporting duties for the banks in 2004 and the PBoC has introduced and updated a Financial Laws and Regulations Data Retrieval System[427]. The new accounting laws also promote stricter disclosure requirements for off-balance sheet positions, loan classification and information which are relevant for taxation[428].

The information and communication requirements set out in the above mentioned guidelines and regulation of the CBRC, the People's Bank and the Ministry of Finance theoretically define the framework for the accounting systems of banks and enterprises[429]. In practice, however, the unfinished implementation of the regulation implies an insufficient quality of information in the banking sector. For example, the common profit and loss statements are often published only on an aggregated level so that the true financial position of banks cannot be deferred. An inadequate degree of balance sheet consolidation in many banking institutions and companies implies that in these cases risks are not reflected in the published data[430]. Many existing standards are still circumvented by manipulative efforts such as window-dressing, trading at artificial prices, not accounting for bad debts, inclusion of extraordinary or even non-existent revenues. A thumb rule suggests that accounting figures should be ignored completely and instead it should be assumed that at least one third of the listed companies are insolvent, e.g. investigations into the 1999 balance sheets found problems with 38 percent of the disclosures at the Shanghai Stock exchange[431]. The reasons for these problems are multiple. On all levels qualified personnel is lacking to transfer international standards into specific Chinese regulation and to apply and implement this framework in the corporate and banking sector[432]. For many smaller companies and banks even simple and accurate accounting systems are too expensive to install and maintain. While accounting expertise is

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426 Loan loss provisioning is split up in general provisions and loan specific provisions. General provisions have to be at one percent of outstanding loans while CBRC regulation gives the mandatory ratios for the specific provisions for the five respective loan classifications. When collateral is foreclosed at a price below the outstanding loan amount the difference can be written-off and the market value has to be accounted for if the asset remains in the books of the bank. These general and special loan provisions are covered in the PBoC Guidelines for Loan Classification in article 28. Here it is stated that commercial banks have to make general provision for loan losses and in case a specific loan is distressed due to the loan classification table special provisions have to be made. The international standard of 20, 50 and 100 percent reserves for loans which are past due, doubtful and bad should be adopted fully.

427 See [Schmitt, 2004], p.24

428 [Watt, 1997], p.320f.

429 For example the PBoC Guidelines on Enhancing Internal Controls of Financial Institutions.

430 This has been criticized for years, see e.g. [Lardy, 1998], p.168f.

431 [Green, 2003], p.135

developing fast especially among the younger employees with international experience, the more senior managers are often not familiar with these standards and their implementation so that stability and predictability do not always result. This fact is contributed to by the differentiated applicability of some rules and regulations. For example the Accounting Standards for Financial Institutions are only applicable to listed banks so that e.g. the Agricultural Bank of China is not subject to these more specific requirements but to other more general provisions which depend on the status of the company or bank. In addition, accountancy firms - which are admitted and monitored by the Ministry of Finance - and the entire auditing process are still highly flawed. Generally accepted standards for the auditing approach have not yet evolved and large listed banks and companies are still lobbying against planned requirements to make auditing by both domestic and international accountancy firms mandatory[433]. Considering the standards of domestic auditors which are said to be more lenient - with testimonies more receptive to good connections - the financial soundness of the Chinese banking sector is still difficult to assess[434]. However, competition and market forces have contributed to significant improvements at least in the more visible and exposed banks but for the large majority problems remain strong.

#### 2.1.1.4 Capital Adequacy and Liquidity Requirements

The concept of capital adequacy standards is relatively new to the institutional setting of the Chinese banking sector and was first introduced in Shenzhen in 1990 and was then integrated in the Commercial Bank Law in 1995[435]. While for long analysts and institutions such as the International Monetary Fund have suggested that stability in the risky Chinese environment could probably not be ensured by an eight percent capital adequacy ratio, this international standard was far from reality when introduced - at the time not even the big state commercial banks met the standards[436]. Today, the CBRC has stated that it will enforce the minimum ratios for all banks by the end of 2006, i.e. capital adequacy ratios of not less than eight

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432 Compare e.g. [Tenev, 2002], p.156.

433 Since foreign banks tend to chose international auditing companies this measure would especially increase costs for Chinese banks.

434 For example in 2002 the CSRC had to withdraw regulation that would have made it mandatory for publicly listed companies to have both domestic and international auditors. Fearing transparency the companies lobbied successfully so that most companies will need to recur only to domestic auditors.

435 [Zhou, 2001], p.111

436 The Economist, “China's banks: Root and branch”, 4. November 2004, p.77f. Analysts estimated the capital ratios in 1999 at around seven percent for the state commercial banks; see [Siackhachanh, 2002], p.6.

percent and core capital adequacy not less than four percent[437]. The amount of supplementary capital shall not exceed 100 percent of core capital and long-term subordinated debt in supplementary capital shall not exceed 50 percent of core capital[438].

In mid 2005 mainland commercial banks had an average capital adequacy of 3.45 percent and only 33 commercial lenders - standing, however, for around 71 percent of all mainland bank assets - have met the required eight percent minimum ratio. This has been a significant improvement in short time since beginning of 2005 banks adhering to the standard accounted for only 47 percent of assets. Twelve banks had issued subordinated debt amounting to 186 billion RMB to bolster their capital basis. The permission to issue subordinate debt by the CBRC has been an important step for banks to buffer their capital adequacy ratios and to push them to internationally acceptable standards. For instance the ICBC got approval to issue 100 billion RMB in 2006 in subordinate debt by the CBRC in June 2005. By this measure the capital ratio will be boosted from around six percent to around eight percent. However, while some banks have already met the benchmark supported by the CBRC, the weakest banks are either excluded from this regulation – for example the rural credit cooperatives - or still have a long way to go. Basically, the most profitable and the most subsidized banks at least ouch upon the eight percent line while the weaker institutions still have to struggle heavily.

The deposit reserves for banks in China consist of the required reserve ratio and the excess reserve ratio. Required reserve ratios are the proportion of deposits at the central bank to total deposits and differ for demand deposits, time deposits and savings deposits. Interbank deposits are mostly not included in the reserve requirements. This instrument can be

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437 Commercial Bank Law article 39 and Regulation Governing Capital Adequacy of Commercial Banks article 7 respectively. This regulation applies only to banks founded after 1995 with transition periods for all other banks. Definition due to article 11 of the Regulation: Capital adequacy ratio = (total capital - deductions)/(risk-weighted assets+12.5*capital charge for market risk); Core capital adequacy ratio=(core capital - deductions)/(risk-weighted assets+12.5*capital charge for market risk). Article 12 stipulates that core capital shall consist of paid-up capital/common stocks, reserves, capital surplus, retained earnings and minority interests. Supplementary capital shall consist of revaluation reserves, general loan-loss reserves, preference shares, convertible bonds and long-term subordinated debt. In case of non-adherence the CBRC demands corrections and the bank has to pay a fine due to article 75.

438 See article 13 of the Regulations. For risk weights see articles 17 to 24. For example article 17states that risk weights of foreign claims owned by commercial banks shall be based on the ratings of external credit assessment institutions for the sovereigns or regions. In case there is a discrepancy in ratings for the same sovereign or region, the lower rating applies. For claims on foreign central governments and central banks, where the rating for the sovereign or region is AA- or higher, the risk weight is 0%. Otherwise, the risk weight is 100%. For claims on foreign banks or securities firms, where the rating for the sovereign or region of incorporation is AA- or higher, the risk weight is 20%. Otherwise, the risk weight is 100%. For claims on public-sector entities invested by foreign central governments, where the

interpreted as an indirect credit ceiling to prevent bank runs and the ratios are rarely changed. Excess reserves are held additionally to the required reserves for settlement and liquidity management purposes. The differentiated interest rates paid by the central bank of required and excess reserves are at 1.89 percent and 0.99 percent respectively[439]. The excess reserve ratio of all financial institutions in mid 2005, after the reduction of the interest rate, accumulated to 3.72 percent which means a slight decrease by 0.03 percent on a year-on year basis. When the interest rates on excess reserves were lowered by 60 basis points the market-determined interbank rates also fell. It is assumed by observers that the interest rate in excess reserves usually has to be around 20 basis points below interbank repo-rates to make the interbank market attractive for banks due to transaction costs and counterparty risks. However, a repo-market comparable to western markets has not been established and banks may often find themselves at a corner solution due to excess liquidity.

#### 2.1.1.5 Insolvency Procedures

While the new insolvency law has been passed by the State Council it has been in discussion at the National People's Congress for some years[440]. Other rules such as the Insolvency Rules for Financial Institutions, the Civil Procedure Law[441], the Security Law[442] and the Enterprise Bankruptcy Law[443] are less comprehensive and apply to different aspects of company and bank insolvencies[444]. Specific regulation for bank insolvencies can be found in nine articles of chapter seven of the 1995 Commercial Bank Law[445]. These provisions imply management

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rating for sovereign or region is AA- or higher, the risk weight is 50%. Otherwise, the risk weight is 100%.

439 Changed in March 2005.

440 Some observers and officials expect the new law to be passed in 2006. New regulations for brokerage insolvencies have been issued by the PBoC, the Ministry of Finance and the CSRC. More closures are expected in the near future. A reduction from 120 to 15 as favoured by some analysts is unlikely due to political and cost constraints.

441 Articles 203-204, basically replicating the Enterprise Bankruptcy Law and adapting it to state-owned and non-state legal persons. Chapter XIX concerns the Procedure for Bankruptcy of Enterprise as Legal Persons. Law of Civil Procedure of the PR of China.

442 Article 33

443 Article 32

444 Others such as the Enterprise Bankruptcy Law of 1988 have been complemented for implementation by rulings of the Supreme People's Court.

445 Here, the articles 69 through 72 concern questions of the merging, splitting, dissolution, liquidation and the insolvency of commercial banks. On the treatment of loss-making listed companies see [Green, 2003], p.186ff. In general they are shifted to the separate Special Treatment segment when they generate losses in two consecutive years and companies are automatically delisted after three years of losses but could apply for an extension when the turnaround is clearly expected, see [Green, 2003], p.188. The threat of delisting has become more credible in recent years but since the share then can be

takeovers and liquidations as a form of crisis resolution[446]. Bankruptcy proceedings in China can only be externally initiated and need to be associated with serious losses and repayment failure due to poor management and operations[447]. In recent years, the main reason for administrative bank closures has been non-adherence to regulations, e.g. speculation in real estate markets, false reporting or failed cooperation with authorities[448]. In practice, however, other solutions such as financial assistance and mergers have gained higher significance in China. The number of bankruptcies has not immediately and significantly increased after the introduction of the Enterprise Bankruptcy Law of November 1988 and only very few cases were initiated by banks[449]. Since closures and liquidations generate additional costs due to reputation losses, the loss of customer relationships and loan collection problems most banks in China have been closed outside the court system. In these cases assets and customers were transferred to other banks in the course of forced mergers or government-supervised reorganizations. Since 1997 the People's Bank and afterwards the CBRC have gathered experience and expertise in administrative closures and liquidations which contributed to the establishment of more standardized closure procedures[450]. Today the CBRC usually revokes

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traded in the OTC market but the incentives are changed. Local governments obviously oppose the delisting of companies in their region.

446 Articles 69 and 70 of the Commercial Bank Law state the possibility of both voluntary and administrative closures of banks. The voluntary closure needs the approval of the regulator and includes repayments of principal and interest under a liquidation plan. A special liquidation team has to take care of the procedure. For insolvencies under administrative closure the relevant legal guidelines are the Central Bank Law, the CBRC Law and the Commercial Bank Law. The CBRC is also responsible for the termination of a banking business and the criteria when a banking license can be withdrawn as stated in the Commercial Bank Law in article 74.

447 However, if liabilities significantly exceed assets, creditors can file bankruptcy charges at a court which stops the administrative closure procedures; [Lou, 2001], p.305.

448 However, corrections can be ordered and other sanctions can also be applied such as confiscation of gains or the decree of a fine. For example fines for illegitimate gains can be as high as 500,000 Renminbi. In case of non-adherence to the corrections ordered banking business can be suspended and changes in the bank may be ordered by the CBRC. Criminal charges can also be brought up if necessary; see [Lou, 2001], p.302ff.

449 In 1995 this number was at 1.6 percent; see [Lou, 2001], p.150ff.

450 [Zhou, 2001], p.189ff. Until the mid 1990ies the insolvency law was hardly applied to banks. Only since end of 1994 the central government chose two provinces as model provinces to test the insolvency law which then was still in development; see [Popp, 1996], p.36. In the period before 1998 the authorities avoided bankruptcies in the banking sector by recapitalizations or forced mergers with financially sound banks. Only cooperatives and some trust companies had been closed with their retail deposits transferred to other banks. In 1998 the Central Bank took management control in the Hainan Development Bank which had previously taken over 28 credit cooperatives and was recapitalized in turn. The Central Bank closed the Hainan Development Bank in June 1998 and reimbursed its depositors and the Industrial and Commercial Bank of China was forced to pay domestic and

the business license, the bank ceases operations and another commercial bank is designated to settle the claims and liabilities of the closed institution. A liquidation team consisting of representatives of owners and different government agencies liquidates assets and specifies a liquidation plan including rules for the repayment of liabilities[451]. In many cases assets, liabilities and customers of unviable banks have been transferred to state-owned banks. While bankruptcy procedures have strained resources at the CBRC and in particular at the commercial banks the approach has been differentiated so far. Financial institutions have either been recapitalized - especially the larger banks -, closed or both like e.g. the rural credit cooperatives. However, the procedures for bankruptcies are incomplete due to unspecific provisions, an insufficient information flow to creditors and an unreliable court system combined with problems of enforcement.

### 2.1.2. Formal Protective Market-Regulating Institutions

#### 2.1.2.1 Lender of Last Resort

The liquidity mismatch between bank assets and liabilities makes the lender of last resort function for the central banks widely undisputed. However, since the legal basis for the lender of last resort function of the People's Bank of China is rather vague it is not always guaranteed that the central bank adheres to strict principles and grants only short-term and sterilized assistance[452] avoid bank failures in cases of illiquidity[453]. Formally, due to the

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international creditors. The new approach in which bankruptcy and closure is accepted shows also in the failure and closure of the well-known Guangdong ITIC; see [Laviziano, 2001], p.38.

451 In enterprise bankruptcies local agencies usually conduct the asset valuation and distribution and according to the so-called Capital Structure Optimization Program the claims of workers and pensioners have first priority.

452 Due to [Lou, 2001], p.280 this should be the case. Obviously, there are no direct links to monetary policies.

453 Here it is said that it should lend “freely but at a penalty rate” with collateral valued at pre-crisis prices. These policies should be communicated in advance; see for example [Zhou, 2001], p.164ff. Two other main principles have been added in the course of time. First, the Central Bank is not obliged to assist and has full discretion in the specific situation. Second, the Central Bank is responsible for evaluating whether a bank is illiquid or insolvent and the Central Bank also asses whether the risk of contagion is attached to a potential bank failure On the history and theoretical foundations of the lender of last resort see e.g. [Lou, 2001], p.277. In practice these principles are hard to translate since especially the line between insolvencies and illiquid banks is difficult to draw. For example the Fed in its capacity of the lender of last resort granted 90 percent of the resources to banks that failed later, see [Garcia, 1999]. Time constraints in the decision aggravate the situation but usually banks will only call for the lender of last resort when other means of financing are not accessible. So the goal of avoiding a wide-spread banking crisis does not exclude that the Central Bank decides to let fail an individual bank in a bank run. The risk of alpha or beta mistakes in the ex-ante prediction and interpretation is rather high and the central bank could also trigger a banking crisis by sending out the wrong signals which would

Central Bank Law and the March 1993 Interim Measures Governing the PBoC Lending to Financial Institutions the PBoC may grant credit, advances and discounts to banks to commercial banks in the pursuit of monetary policies with durations not exceeding one year[454]. Additionally, the People's Bank can conduct measures to ensure stable and sound bank operations - which could also be interpreted as a provision for the lender of last resort function. It seems to be unclear whether the investment policies of the central bank through Huijin can be categorized under the lender of last resort function since this policy clearly targets solvency problems at banks. With the lender of last resort not clearly defined the PBoC seems to follow a case-by-case approach with constructive ambiguity while not transparently revealing the extent to which assistance is granted. Hence, well-connected special interest groups can thus influence the central bank's conduct - especially since the independence of the Chinese central bank is limited[455]. In fact, problems have occurred before like in the case of Hainan Development Bank which received three billion RMB in liquidity assistance in December 1997 and went into bankruptcy one month later. This case illustrates the mixed track record and limited success - also known from other countries - of differentiating between solvency and liquidity crises.

#### 2.1.2.2 State Guarantees and Deposit Insurance

While the introduction of an explicit deposit insurance scheme has been basically made, its form, structure and scope are still in discussion[456]. A planned insurance scheme is likely to be funded by contributions and the residual from the dissolution of insolvent banks. However several issues remain to be solved such as the cover limit, the institutions covered and the affiliation. As discussed the limit for coverage may be between 100,000 and 200,000 RMB. This limit is relevant since about 98.3 percent of all bank accounts in China have balances exceeding 100,000 RMB. Opting for a limit of 200,000 RMB limit, the ratio of affected

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undermine market confidence. Also the scope of the lender of last resort function is mot clearly defined since the frontiers between the different market segments in the financial market diminishes more and more. Basically all financial institutions could be entitled to central bank assistance, e.g. the Fed supported securities firms in the crash of 1987; see [Lou, 2001], p.278f.

454 Article 27 of the Central Bank Law. Discounts are only allowed for terms up to six months. However, under the provisions of the Interim Measures banks need to have the necessary debt-servicing capacity which could make this provision inapplicable when the lender of last resort function is needed most.

455 [Lou, 2001], p.281

456 On deposit insurance in the Chinese context see [Ketcha, 1999]. Also the Regulations Governing Deposits and Savings of December 1992 only generally state that the government should protect the legitimate rights concerning household savings. Some analysts interpret the 1984 minimal reserve quota system at the PBoC as a deposit insurance fund.

accounts would increase to 99.3 percent. While it is unclear whether only domestic banks or also foreign banks should be included in the scheme, also the affiliation - either with the CBRC, the central bank or another agency - has not been definitely decided. The initial funding is also disputed with a high probability of funding by the People's Bank. There may be an introduction of a deposit insurance scheme at short notice but this is not expected before 2007 since especially the form - private of public - is still unclear. So far, the Commercial Bank Law promulgates some disclosure requirements for banks which may protect depositors and their rights[457], e.g. that commercial banks have to guarantee the payment of interest and deposits. In practice so far - and despite the lack of a legally binding deposit insurance scheme - the government has always bailed out depositors to maintain social stability[458]. Even in a rapidly shifting environment, observers still interpret this as an implicit government guarantee for depositors. In fact, many state-owned banks consider today's implicit state guarantees as a logical consequence of historic political lending which has diminished their profitability.

### 2.1.3. Institutional Analysis of Formal Market-Regulating Institutions

Formal market-regulating institutions are usually introduced to resolve market failure and informational deficits in the market. They often affect relations in which delegation plays a role so that usually various agency problems arise - e.g. due to complex property rights positions or opportunistic behaviour. In the best case common interests prevail and remaining conflicting interests can be aligned. While banking sector stability is a common interest of market participants the introduction of the above introduced preventive and protective measures implies conflicting interests. Basically, preventive market-regulating measures as described above are an interference with the contracting freedom of the market participants and tend to shift responsibilities from private individuals and banks to official supervisors and regulators. Protective measures such as deposit insurance schemes or lender of last resort

457 In the relevant articles of chapter 3 provisions concerning interest rates and minimal reserves are described; see e.g. [Wan, 1999], p.207. Here, basic principles for bank conduct are formulated, including the principles of willingness, freedom of withdrawal, accruing interest, and privacy of depositors in deposit taking business; see articles 31 and 39 of the Commercial Bank Law. Article 32 states the obligation to maintain deposit reserves and special reserves with the PBoC. Since companies have to establish their basic account with one main bank the government may have easy access to the customer-related information by issuing the relevant regulation. Companies are not allowed to open more basic accounts. Basic accounts are used for all routine payments such as transfers and cash payments, see [Wan, 1999], p.208. Controls, however, are merely possible today.

458 Depositors of the Hainan Development Bank, the GITIC and smaller banks in bankruptcy were bailed out completely by some official authority, e.g. the PBoC local branches or the government; see [Zhou, 2001], p.180.

functions, however, often imply distortions in the incentive scheme like moral hazard issues. These are partly mitigated by market-conform preventive institutions like functioning competition including an adequate market access regulation[459]. In other cases distortions in the informational and incentive structure affect human and economic interaction. In the Chinese banking sector, market-regulating institutions consequently have a broad but mixed impact on resource allocation and the outlined macroprudential indicators. Especially due to the dynamic changes of the institutional framework complex agency problems - implying hierarchies and multiple-principle and multiple-agent situations - influence banking sector stability since responsibilities are frequently not clearly attributed. Changes are implemented and processed by market participants with a time-lag. However, by mitigating e.g. ex-post opportunism such as hidden action and hidden information market-regulating institutions also contribute to a reduction of informational and incentive distortions in the Chinese context.

For instance, the competitive situation in the Chinese banking sector is significantly affected by formal market-regulating institutions since the form and degree of competition is strongly influenced by government agencies like the banking regulator CBRC. In theory, sound competition is a common goal subscribed to by many market participants in the Chinese banking sector. In practice, however, many market participants pursue different and conflicting goals. While Chinese banks need to consolidate financially without significant losses at their customer base, foreign banks intend to enter the Chinese market to gain market share and to build long-term customer relationships. Official policy statements support a "reasonable" degree of regulation to encourage fair and eliminate "disorderly" competition[460]. The government and the CBRC ambivalently welcome foreign competition and want to stabilize Chinese banks through qualified international investors. Still the government is not willing to accept significant foreign influence in the Chinese banking sector since this could harm banking sector stability. This has been made clear by CBRC officials[461]. Hence, banks have to operate under an ambiguous policy mix in a competitive market with partly existing

459 Some authors promote free market access while others argue that an efficient screening of new entrants would enhance stability. Empirically, impediments to bank entry seem to be positively correlated with bank fragility. These findings also state that entry barriers are not positively associated with a better performance of the banking sector. Further, in transition economies with lenient bank supervision there seem to be no positive effects of access regulation on banking sector development, stability and performance; see [Barth, 2002], p.6, p.21 and p. 30f. Other recent empirical studies suggest that less regulation of bank competition and activities reduces the likelihood of a banking crisis. On this and links between concentration and banking crises see [Beck, 2003].

460 China.org.cn, "CBRC Chief on Goals of Good Regulation", 29. May 2003

461 Tang Shuangning, the CBRC´s number two; see Schweizer Bank Online, by Jan Hoehn, 20. December 2005, "China: Banken rüsten auf".

overcapacities. This creates various interaction problems of both informational and incentive-based nature.

Informational and incentive problems distorting the competitive situation in the Chinese banking sector are mostly due to the ambiguous bank reform strategy set out by the Chinese government. The goal of attracting foreign investors to commercialize domestic banks without granting them adequate influence is contradictory and illustrates a constructive ambiguity shown by the Chinese government in many areas of the reform process. The rather vague goal of the Chinese government to create an international competitive banking sector is open to interpretation. It is understandable that the CBRC is reluctant to grant full market access to foreign banks when the still precarious financial situation of many Chinese banks is considered. With their more sophisticated products and services and a risk-based pricing - in addition to an international reputation - foreign banks could in a short period of time attract the upper customer segment in almost all markets such as investment banking, asset management and corporate credit. Since this upper segment is very lucrative for banks, the profitability of domestic banks would suffer from this process of adverse selection. Foreign banks thus have to bear significant higher costs for market entry and in many cases have to opt for alliances with existing Chinese banks. This official policy strategy of granting limited access and control while securing knowledge, technology and capital transfers to Chinese banks only works since foreign banks are seeking - partly desperately - market access in the large and potentially profitable future banking sector. Many foreign financial institutions surprisingly assume that the time-frame for market entry is limited to secure a good starting position. Considering the strong pricing of stakes in Chinese banks, foreign investors and financial institutions bear a significant share of bank restructuring in China - traded against possible future market opportunities. However, due to regulatory and political uncertainties foreign banks cannot be sure whether business continuity is granted when the banking sector is troubled or when share prices decrease. Investments for foreign banks thus imply putting their shareholders at risk in a highly regulated and rather inaccessible market. However, Chinese state investor Huijin has complained that stakes in Chinese banks would be sold below potential market prices reducing government gains[462]. This discussion is complemented by critical remarks concerning legitimacy and the appropriateness of government stop-loss guarantees for foreign investors as granted to Royal Bank of Scotland and Bank of America at the Bank of China. This has led to some renegotiations of purchasing prices which adds further insecurity concerning market entry[463]. Considering the market conduct of government agencies and other financial institutions foreign banks actually feel subject to a certain degree

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462 For example the value of the stakes of Bank of America and Temasek in China Construction Bank has doubled after the initial public offering.

of discretion concerning supervisory measures of the CBRC and fiscal authorities[464]. Even if this is only an informational problem due to insufficient communication strategies and channels this perception adds further uncertainty to the incentive scheme of foreign institutions while not generating positive returns for Chinese banks or government agencies. Additionally, the branch-driven supervisory approach concerning liquidity and other financial ratios contradicts the consolidated approach to supervision of the CBRC and has been criticized for discriminating against foreign banks. This may create credibility problems of the CBRC even though its work style has become more transparent and open to public comment. Especially professional expertise in specific areas such as the design of risk-management indicators is invited[465]. Competition is also increasing between domestic banks since Chinese commercial banks have become an attractive alternative to state-owned commercial banks, especially for private industrial and trade enterprises as well as sophisticated middle-class depositors and investors. Continued banking reforms and market opening will enable bank customers to choose their bank freely - at least in city areas - which will add to price and quality competition among all banks since refinancing through deposits is still rather cheap. Since private companies account for high growth figures and stand for an increasing proportion of the Chinese industry and commerce, commercial banks have gained market shares. This is partly due to their better risk-pricing and thus larger risk-appetite but may also have some corporate culture aspects due to more comparable ownership structures and higher flexibility. However, also state banks tend to grant more credit to private companies when those are big enough and with more liberalized interest rates price competition will increase in the near future. Already today the lending decisions of state-owned banks are based on deposit ratios so that their credit policies have been described as more stable even in times of restrictive monetary policy[466]. The development of commercial banks was rather fast in the last years since both banks and cooperatives were merged or new commercial bank were founded. The government agencies have supported activities such as mergers to build a second-tier domestic competition for the big four and to secure credit allocation to smaller companies. This strategy has only partly paid off since mainly smaller commercial banks still have problems with non-performing assets and governance. Despite the fact that responsibilities for restructuring are not clearly attributed to the national or to sub-national levels it seems to be unlikely that the central government, the CBRC and the central bank will accept a failure of a commercial bank which may be systemic in a local market. An additional

463 See for example Handelsblatt, 3. January 2006, “In China fallen die Hürden”.

464 Information obtained in interviews.

465 See for example the Public Notice to solicit comments in Core Indicators for Risk-based Supervision of Commercial Banks, 6. February 2005.

466 For instance in the phases from 1989 till 1990 and from 1993 till 1996, see [Homann, 1999],p.52.

competition for traditional banks has evolved in form of financial conglomerates[467]. They conduct diverse businesses under a common ownership with all their entities in need of a separate operating license. Accounting for only small percentages of the financial markets today some have gained significant size such as Ping An or Everbright - even though the Commercial Bank Law explicitly promulgates the separation of commercial and investment banking[468]. Many industrial groups such as Haier have in fact also become mixed conglomerates since those are not subject to the legal bans of financial conglomeration. Many of these financial and mixed conglomerates can be expected to operate at provincial level - mostly tolerated or even supported by sub-national governments. Obviously, financial conglomerates can play a positive role in economic and financial market development due to economies of scope and scale and due to their potentially sophisticated demand and supply in capital markets. Since ownership structures and accountability are rather opaque in these conglomerates intra-firm and transaction-related risk exposures could harm banking sector stability when an adequate supervision of these organizations is missing. Additionally they could foster concentration efforts in the manufacturing and banking industry which would reduce competition in China. Hence, especially due to the tripartite approach to financial market supervision in China the interaction between the regulatory and supervisors authorities is core to avoid destabilizing effects from an unsuspected sector. Concerning the competitive situation some important questions remain for a highly regulated and overbanked environment in which official profitability and asset quality indicators have developed quite positive - albeit starting from a low level. Obviously, government actions and the approach of the CBRC will significantly determine the degree of competition and the business conduct and market outcome in the Chinese banking sector. So far, small and sophisticated barriers to entry[469] in specific market segments have been put up in China while the government is well advanced in implementing the WTO agreement. Chinese banks have gained resources and time in this game while foreign banks are more financially stable and are obviously willing to pay the price. However, future government policies will determine whether domestic banks

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467 Conducting more than banking business, i.e. insurance or securities business or both. However, not necessarily a financial holding.

468 Banks are not allowed to invest in trust and investment companies due to article 43 which was introduced since the government feared loan-financed speculation in the equity markets. The Securities Law of 1999 and the Insurance Law of 1995 in articles 6 and 133, and 5 and 104 respectively stipulate similar restrictions. Ping An, China Everbright but also the Bank of China have circumvented these provisions in their operations not only in areas like Hong Kong SAR where financial conglomeration is legal. Ping An has bought a share of around four percent in Industrial Bank in late 2005 which integrates the business divisions further; see www.scmp.com, 28. September 2005, “Ping An buys into Industrial Bank in $196m Yuan deal”.

469 Such as general restrictions of RMB borrowing in the interbank market. While this regulation applies to all banks it hits foreign banks harder since those do not have a strong deposit base in China.

will still face a distorted incentive scheme with moral hazard, e.g. due to government recapitalizations or guarantees. This could increase fiscal costs and stability risks for the banking sector. Especially when the banking sector will slip back against the projected reform path it will be crucial how the government reacts and whether some WTO provisions will turn out to be time-inconsistent - which could trigger ex-post opportunism by official agencies and deviations from prior commitments. It will also be essential for further the development how customers will react to market liberalization. In case that huge deposit volumes are withdrawn from state-affiliated banks bank-run tendencies could occur which then would destabilize the banking system. However, with a long-term reform process and - at least perceived - government guarantees the probability is reduced but depends on overall system trust of investors and depositors. This could be shaken e.g. by political incidents. Since in transition flexibility of policy measures has a high intrinsic value and considering the political culture in China it can not be expected that the government will abandon its approach of constructive ambiguity to the detriment of clarity. This could lead to less predictable actions in case of a crisis which may reduce trust levels in the market. However, while in the short-run frictions may arise, an improved competitiveness and financial stability of Chinese banks will contribute to banking sector stability in the future[470]. And in fact, competition has helped to improve capital adequacy ratios, management soundness, liquidity positions and economic growth. It has also indirectly via foreign direct investments added to a stable exchange rate and a balance of payments surplus - two factors that Chinese and foreigners observe critically. However, the impact on indicators like profitability, asset quality and lending volumes is mixed and signals implied risks for banking sector stability in the transforming banking sector in China.

In this context state ownership in the banking sector is a highly disputed topic. As a fact it changes the incentive scheme and while it is designed to overcome conflicting interest of market participants it also creates new lines of conflict. Obviously, state ownership of banks reinforces the social and political dimension in banking which makes decisions more complex. Especially the independence of a professional bank management is crucial for the economic success of state-affiliated banks and is hard to obtain and secure in economic transition. Also in China the principle of self-responsibility is hard to implement in the banking sector on all levels. Government bureaucrats fear a significant loss of power and rent-seeking opportunities so that reforms, commercialization and privatization are difficult to

[470] While the impact on the securities markets is still not clear the impact on the banking sector is estimated to be more significant than on the insurance market. The latter will remain protected by the continuing regulation that restricts foreign insurances to 50 percent shareholdings of joint ventures. The

realize. Especially in the 1990ies conflicting interests between local and central government agencies have become apparent and are still not resolved - having lead to a suboptimal degree of commercialization in many state-affiliated banks. While the central government pushed for market-based reforms and finally more centralization, local politicians wanted to keep their source of funding and the implied degree of independence from the central government. The complex set of economic and banking sector reforms still is partly counter-productive and is highly intertwined with the discussion about political decentralization - also in the tax system. But also senior bank staff profits from kick-backs[471] and the possibility to be shifted to lucrative government postings. This implies internal resistance to bank restructuring, especially in the middle and senior management who are involved in turf battles with officials and the top bank management who want to create a positive showcase of successful commercialization - also to boost their careers. The customer side in China obviously expects good services but partly expects the state banks to fulfil a social role in society, e.g. the geographically broad provision of bank services. While in this environment service quality is reduced due to inefficiencies also fiscal costs incur to the government and thus the tax payer. Bank shareholders - excluding majority shareholders - do not have a good standing in China so far. Especially their control rights and their possibilities to influence the government are limited since those are often perceived as conflicting with superior goals such as “harmonious development” and are thus not properly implemented and enforced. Even though the success of the ongoing privatization efforts will significantly depend on the satisfaction of these often small and private domestic and international investors, the official positions - such as containment of foreign and private influence - does not augur well for improvements in the near future. This insecurity about state ownership and the status of property rights is contributed to by a reinforced debate about the legal foundation of property rights. This public debate has induced China's National People's Congress in 2006 to postpone a decision about the planned new Property Rights Law. The draft of this law aimed at equalling the legal positions of public, collective and private property rights in China and has been negotiated in the recent years. It was more criticized socially and politically for cementing economic and social disparities and for contradicting socialist principles - especially from Marxists scholars. Even though the draft did not even constitute heavily disputed private land property rights it fell victim to political and social problems in China which were projected into the law by

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RMB securities market has not been covered in the accession documents and is thus not under pressure to be opened to foreign competitors; see [Wolff, 2002], p.101.

471 These partly come as illegal consultant contracts so that banks risk their licenses.

some players. These common as well as conflicting interests are hampering privatization efforts and create a multitude of interaction problems - both of informational and incentive-driven nature.

A mixed ownership has become common for Chinese banks. This has brought about new challenges for market participants since property rights - i.e. ius usus, usus fructus, abusus and successionis - are usually not clearly attributed. It has also reduced accountability and the incentive to monitor and control for all parties and has increased the need for official supervision[472]. Multiple-principal constellations in form of multiple owners and monitoring parties blur clear accountability and creates loyalty problems for the banks while private monitoring mechanisms have not yet evolved to a sufficient degree. The growing number of privately-controlled companies does not match the ownership structures in the state-owned banks which leads to competitive advantages for non-state banks due to similarities in mentality and corporate cultures. This mismatch promotes alternative sources of finance and tends to hamper bank development in the mid-term. The underlying mentality issue indicates that regulation and the separation of ownership and control may not be sufficient substitutes for privatization[473]. The leverage that central or sub-national governments still have over other banking sector participants as well as over the judiciary harms the efficient allocation of capital and discourages economic interaction. In this situation the interests of market participants - especially banks, customers and regional and central governments - are not aligned so that multiple-agent and multiple-principle situation arise. The resulting high agency costs due to a lack of separation of ownership, management and regulatory power reduce the economic growth potential and tend to impact negatively e.g. on management soundness and profitability. For example, the deplorable financial condition of many rural credit cooperatives is partly due to the fact that they are formally owned by their members but that many ownership rights are exerted by local central bank branches in conjunction with the respective local governments - which has created severe conflicts of interests.

Especially tensions between local governments and the central government still pose risks to the banking sector. While in the reform process the local bureaucratic entrepreneurialism contributed to smoothing the negative repercussions of the economic reforms, today, the negative implications are obvious. The agency costs of local government ownership and interference with respect to an emerging private entrepreneurialism and the evolution of a market economy are significant. The banking sector in particular has suffered from these

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472 Compare for example [Wohlmuth, 1996], p.53.

473 Compare also [Tenev, 2002], p.134.

interventions and the multiple-agent situation with respect to its profitability, its efficiency in capital allocation and the capacity to provide financial intermediation. Additionally, the distorted incentive scheme for banks may support a tendency to socialize losses to the tax payer while revenues from local projects can be internalized or distributed to relevant decision-makers in the banks and in politics[474]. The incentive-based misalignments due to state ownership also foster credit concentration in sectors or companies with government affiliation or in business areas reflecting state industrial policies. The three policy lenders which have broadened their business scope and partly compete with the state-owned commercial banks and other commercial banks can also be seen as a distortion in the banking sector. With their subsidized and guarantee-backed operations they distort the incentive scheme for customers and other banks since they disable the pricing mechanisms. Deposits in these banks may not be efficiently allocated and other banks may be deteriorated from competing with policy banks in specific regions or segments. Additionally, even the state policy banks are reducing their presence in typical “blind spots” such as rural areas to seek business with more profitable corporate and individual customers - countervailing a main argument for their existence.

The continued government investments in the banking sector - especially through Huijin - have a mixed impact on ownership structures and the resulting incentive scheme. Recapitalizations can prepare further privatizations in the banking sector. However, it can legitimately be assumed that the Chinese government primarily wants to create an internationally competitive banking sector which helps to promote economic growth and thereby stabilizes the political, social and economic environment in China. Privatization and foreign investment can thus be seen as necessary measures which are taken only as far as necessary. A determining influence of government voting power remains at the core of the reform policy. Considering the impact of government ownership on institutions such as governance it is probable that in the long-run for example the innovative capacity of Chinese banks may suffer due to bureaucratic structures and mentalities - which have historically not fostered innovation. Considering destabilizing tendencies such as national and sub-national financial disintegration due to inefficient capital re-allocations and sub-standard asset quality, government ownership in its practiced form in China has proven to harm banking sector stability[475]. In fact, the observed commercialization of state banks has not yet succeeded in

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474 Compare [Tenev, 2002], p.20f.

475 As discussed later tax and price policies have often further distorted the incentive structures - leading to capital misallocations.

removing ambivalent incentive schemes and multiple-principal as well as multiple-agent situations which bank managers face. Indirectly these problems influence issues like the efficiency of the branch network, the selection of customers and business regions, staff qualification, technology and asset quality. Incentives to provide concessionary and non-commercial lending still distort credit-decisions so that governance, business strategies and internal organization as well as the information, reporting and monitoring systems still pose risks to banking sector stability[476]. Further, serious investors who want to transform a Chinese bank to international competitive institutions may be deterred by overwhelming government influence which limits their impact on bank operations. Contrary to this, less serious and short-term speculative investors may be attracted who want to capitalize on price increases before or during public offerings while government ownership may signal implicit guarantees so that their risks would be limited[477]. By signalling security, government ownership can also reduce risk premiums which would distort the markets further, e.g. via price signals at the stock exchanges. Even if recapitalizations and other government action would be stated in an ex-ante contract it seems questionable whether these provisions are time-consistent when government ownership and control continues. In this case ex-post opportunism of market players could generate situations in which the government would have to inject fresh money despite the high risks of creating a precedence and further moral hazard[478]. The broadening of the group of owners so far has already improved monitoring and control mechanisms since even the different government agencies are controlling each other so that corporate governance has already profited. Despite some positive moves, state ownership in the Chinese banking sector still negatively affects asset quality, management soundness, and profitability while the risks for lending booms, economic growth and contagion increase. But also the transfer of monitoring from government to private entities parallel to a shift in ownership structures has created risks to stability since internal government control is reduced and

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476 More consolidation of state-affiliated financial institutions, e.g. credit cooperatives, can be expected so that further players with a systemic size may enter the market. This is illustrated by the merger of the Union Bank in Hong Kong and the Industrial and Commercial Bank of China or the merging of the 13 subsidiaries of the Bank of China.

477 These risks increase with share trading due to less comprehensive selection processes. In the past returns from a floatation have often been used to compensate operational losses. Banks and corporates have initially interpreted the returns as new subsidies with resulting low incentives to pay dividends or to allocate capital efficiently - failing to address the nature of equity capital. In many big bang transformations the privatization was followed by a massive delisting since companies often were too small for being traded at a stock exchange. For example in the Czech Republic 1.600 companies were listed in 1995 but 90 percent have been de-listed until 2002; see [Green, 2003], p.33.

private agencies are either not admitted, not experienced or lack essential and reliable information.

This relevant information strongly depends on the accounting and disclosure requirements set out by the government agencies, especially the CBRC, the People's Bank and the Ministry of Finance. Here, conflicting interests reduce the effectiveness of the actual framework. For example the accounting practices for financial institutions are promulgated by the Ministry of Finance and the People's Bank and can be changed only by both institutions together[479] with the Accounting Department of the Ministry of Finance as the leading institution. Provincial Ministries of Finance can introduce further measures upon approval of the Ministry of Finance if those do not contradict or disturb the common national accounting standards. Especially loan provisioning has been an issue between the PBoC and the Financial Institutions Department of the Ministry of Finance due to the expected fiscal implications. Hence, some planned accounting rules and prudence elements - e.g. deductions and income deferral - were not included to keep the taxable bank revenues stable[480]. Generally accepted standards for the auditing approach have not yet evolved, partly because large listed banks and companies still lobby against planned requirements to make auditing by both domestic and international accountancy firms mandatory. As a matter of fact, this would significantly increase costs for Chinese banks and companies. Also within the Chinese banks interests can be diverging between top managers and the middle management. While senior managers and young and well educated professionals often see the necessity to implement strict accounting and disclosures measures the middle ranks are partly fighting turf battles to maintain a more personal and relationship-oriented banking style.

Severe information and incentive-based problems have resulted from the existing accounting and disclosure framework despite some positive developments which are primarily due to CBRC activities. Especially the missing tax-deductibility for loan-loss provisions sets wrong incentives for market participants and does not contribute to bank stability. In 1998 banks were allowed to make provisions on irrecoverable loans at year-end of one percent which are tax deductible. Additional provisions exceeding this limit can be made but are not tax deductible which does not increase the incentive for prudent and sufficient provisioning. An inadequate level of loan provisions in many banks or at least time-lags in provisioning have resulted which unnecessarily makes the Chinese banking sector vulnerable. An additional

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478 Also, the political feasibility of recapitalizations may be lacking when government ownership is reduced.

479 [Macheledt, 1997], p.292

480 [Green, 2003], p.135ff.

complication occurs since the government and other interested and concerned parties can prevent sensitive information from being disclosed[481]. In specific cases this possibility may conflict with disclosure requirements necessary to build market discipline and private monitoring mechanisms. In this context it does not help that attestations of Chinese auditors can allegedly be influenced by good connections[482]. While a sudden and accurate implementation of accounting and especially disclosure standards may still evoke shocks to trust levels due to the revelation of financial information, the lack of these standards poses a systematic risk to depositors and investors[483] which can deter market participants and can hamper bank development. The unclear incentive scheme concerning information disclosure and accounting has lead to the fact that many companies in China have several balance sheets for different purposes. This practice may also include some smaller banks but in general poses a significant threat especially to the credit business and portfolio of banks which then can derive the creditworthiness of customers only through informal channels. Despite remaining problems and the resulting difficulties to screen the markets and to monitor market participants the existing accounting and disclosure requirements have positively contributed to capital adequacy, asset quality and management soundness in Chinese banks by setting a defined standard. The fact that the price for false signalling of financial soundness increased with the introduction of the requirements has facilitated separating equilibria among market participants. This has reduced the risk of contagion but the described flaws still impact partly negative on future bank profitability due to provisioning and loan portfolio risks.

To buffer these and similar risks China has formally introduced commonly accepted capital and liquidity requirements. Generally, the high implied costs for banks and a possibly limited impact of capital requirements in high-risk environments may reduce the incentive to adhere to these standards. In China, however, government agencies and especially the CBRC intends to monitor these standards increasingly strict. This has been the common interest of all market players since these standards are core to the development of internationally competitive banks. Contrary to this, the new Basel II accord has been viewed critical among most market players in China[484]. While customers and investors may have an interest in its implementation banks and government agencies have criticized the high associated costs of the more risk-sensitive standardized and internal measurement approaches to capital adequacy[485].

481 Article 11 of the Law on Banking Regulation and Supervision.

482 For example in 2002 the CSRC had to withdraw regulation that would have made it mandatory for public limited companies to have both domestic and international auditors. Fearing transparency the companies lobbied successfully against international auditor involvement.

483 Compare [Lou, 2001], p.243.

484 See FAZ, “China und Indien lehnen Eigenkapitalstandards Basel II ab“, 19. August 2003, p.13.

485 On Basel II see for example [BIS, 2001].

Liquidity requirements - also a part of the monetary policy tools - and capital requirements partly align interests between market players in China, especially between depositors, owners and bank management since excessive risk-taking behaviour is at least reduced. Especially under market imperfections capital adequacy and liquidity requirements can set incentives for banks to act more carefully while losses are cushioned to a certain extent so that trust can be established more easily. Chinese banks on average do not suffer from liquidity problems due to deposit growth but are still partly insolvent. Bank runs in specific cases can thus not be excluded but they need not necessarily end in an individual or collective bank failure. The improved profitability in cash-flow terms has, however, not improved the return on assets so far due to write-offs and loan-loss provisions. Retained earnings have helped to increase capital adequacy thanks to rules that after-tax profits can only be distributed when the provisioning was sufficient[486]. However, with high pressure on banks in the course of public offerings of state-owned commercial banks, exemptions from the Guidance on Provisioning for Loan Loss have already been granted to facilitate dividend payments for investors. This policy sets short-term incentives and relies on long-term commitments of banks to adhere to the standards in the agreed time. Serious long-term investors may feel uncomfortable with this ambiguous strategy and short-term speculators may feel invited to capitalize on dividends which do not reflect the consolidated financial state of the bank[487]. Also within banks the introduction of capital requirements and the necessary risk-management and provisioning policies have created tensions between local branches and headquarters. While the headquarters need accurate information about risk positions to manage e.g. credit portfolios, branch managers have the incentive to report high profits and low volumes of loan-loss provisions to secure their careers. Underlying risks may thus only be revealed by more centralized and technology-based systems which are not yet wide-spread in China, especially not in smaller banks. Window dressing, i.e. short-term financial operations to cover financial risks, is still common practice in troubled banks even though it may have become less frequent in the large Chinese financial institutions. This practice includes efforts to adhere to the capital adequacy requirements since the capitalization in these banks is often challenged severely by non-performing assets. It can be observed that banks consider or actually conduct window dressing, e.g. by selling assets with high risk weights with a repurchase guarantee at the end of an accounting period to increase the capital adequacy ratio[488] which severely harms positions of other market participants. The possibility to issue subordinated debt, however, has a positive effect since it fosters public oversight and market discipline - also by the evolution of a secondary market for this asset type. And despite the above deficiencies of the

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486 Compare Article 9 of the Guidance on Provisioning for Loan Losses.

487 In any case state policy banks do not necessarily need to follow these rules.

capital and liquidity requirements for the Chinese banking sector their introduction has yielded positive results. The actual capital adequacy ratios - a relatively recent instruments in China - have improved and they set further incentives to monitor asset quality, e.g. through sound management. With the currently high liquidity levels in Chinese banks the requirements have slightly reduced risks for contagion and lending booms, even though this is perhaps not sufficient considering recent lending volumes in 2005 and 2006.

Similar diverging interests can be observed concerning the insolvency procedures of banks and other enterprises in China. These conflicting perspectives have prevented the adoption of a new and more comprehensive insolvency law for the last years. Even though the law has already passed the State Council, delegates in the National People's Congress are still struggling about the influence of the various players in the outlined insolvency procedures. This standstill illustrates the conflicting interests between local and central government agencies as well as banks and enterprises. The missing of a comprehensive and sophisticated insolvency law implies a missing threat of economic failure. Usually, the possibility to lose market share, to go bankrupt, to be delisted or to fall victim to a takeover are incentives to improve corporate governance, prudence and risk-sensitivity and fosters the awareness of market participants - including the regulator and shareholders - to critically monitor the banking sector[489]. Hence, the existing insolvency procedures in China can only partly overcome creditor passivity[490] which seriously harms the stability of individual banks. The official more lenient approach to enterprise bankruptcies partly can trigger prudence in bank lending when adequate risk-management systems are in place. This generally reduces credit supply and thus is a serious obstacle to economic growth in times of low liquidity levels. Since both risk-management and liquidity play in favour of a lending boom these constraints currently do not bind the Chinese banking sector. Contrary to this, a strict insolvency law reduces risks and uncertainty in the financial markets and can thus support lower interest rates for borrowers[491]. In addition to these unsatisfactory conditions the incentive scheme for banks and enterprises is further distorted since the large number of state-owned companies can officially not go into bankruptcy[492]. Hence, the local and central governments as the owners

488 For the example of the Shanghai Pudong Development Bank; see [Gong, 2005], p.36.

489 See for example [Tenev, 2002], p.128.

490 Here creditors tolerate the default of their debtors either voluntarily or involuntarily and tend to roll-over or reschedule loans. For a more detailed discussion see [Begg, 1993] and [Mitchell, 1993].

491 Empirically, a stricter law increases the proportion of managers actually owning the companies since they have to bear full risk of their operations; see The Economist, “Life after debt”, 16. April 2005, p.72.

492 [Li, 1997], p.210

neither have a direct incentive to improve the insolvency law nor to apply the outlined procedures strictly. This further discriminates against the growing number of private companies which feel subject to judicial and political discretion. The general systematic differentiation between private and state-owned enterprises creates discretion and inequalities. In fact, political connections and connections to the judiciary in China still significantly determine the way financial institutions, enterprises and individuals are affected by bankruptcies.

So far, the formally existing bankruptcy procedures in China are not comprehensive and rather unspecific so that their implementation has remained difficult. This includes problems like the distribution order of collateral which may diminish specific creditor rights. In insolvency cases creditors are usually only entitled to satisfy their claims after employee salary and labour insurance benefits have been settled and after tax obligations have been served[493]. Even collateral - e.g. precious land use rights - can only be realized by banks after these more senior claims[494]. While the seniority of employee and tax authority claims aim at maintaining social stability it makes banks especially vulnerable to bankruptcies of state-owned enterprises. The result of this weak position of banks in the insolvency procedures is a sub-optimal and below potential protection against contagion from the real sector. This weakness is added to since creditors cannot file bankruptcy charges against a company of national economic importance or socio-political significance, e.g. manifested by subsidies[495]. In government-induced mergers or liquidations creditors usually have little say so that banks often become captive lenders with the implied risks for bank stability[496]. Due to limited rights of banks in enterprise insolvencies the influence of banks on restructuring and reorganizations is reduced and in many cases banks face endogenous and exogenous disincentives to recover loans, e.g. local protectionism, internal soft budget constraints or a lack of rule of law[497]. Even the detailed Law on Credit Security has only marginally increased creditor rights and recovery

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493 See for example [Lou, 2001], p.156f.

494 This has been promoted in the State Council Supplementary Notice on Issues Concerning the Trial Implementation of Several Cities of State-owned Enterprise Bankruptcy and Merger and Re-Employment of Staff and Workers of March 1997.

495 See Article 3 of the Enterprise Bankruptcy Law. The burden of proof is on the creditors in all cases.

496 The Asset Management Corporations were a consequence of weak creditor rights since they were expected to perform better in loan recovery. A discussion of specialized agency solutions can be found in [Lou, 2001], p.90ff.

497 Financial sectors in many countries such as Brazil and Thailand have experienced that a lack of rule of law and deficiencies in the legal structure and infrastructure create incentives for the market participants to default on contracts and on loans since sanctioning mechanisms are not taken serious; see [Lou, 2001], p.151.

rates due to a non-transparent court system and a lax enforcement of verdicts. However, government interference on various levels remains the core problem on the way towards more efficient insolvency procedures. This also implies that banks often do not even fully utilize their creditor rights[498]. But also for debt restructuring and debt disposal the current framework is not reliable, transparent and efficient enough to channel interaction towards efficient loan recovery and long-term bank stability[499]. These interaction problems are aggravated by the institutional design of the "liquidation group" which administers the insolvency procedures[500]. Under the provisions of the Trial Bankruptcy Law for State-owned Enterprises this commission consists of representatives of the owners, the local community, the Ministry of Finance, the People's Bank, the Ministry of Commerce, the CBRC and commercial banks. Hence, it is not only the law but also the implementation and the cooperation between different government agencies that may pose threats to an orderly dissolution of troubled banks. Since the central and sub-national governments have a vast array of instruments to interfere, conflicts of interest and power struggles occur between the involved parties, e.g. the revenue authority or the labour and personnel department. Since in fact bankruptcy can only be declared with government approval in many cases the process is artificially prolonged which further increases costs[501]. While the CBRC organizes bank insolvency procedures local governments have the measurement and management responsibility and courts have to issue the verdict. The lack of lawyers and deficiencies in the legal system often stall or prolong procedures and since local governments are often part of the owner group conflicts of interests arise almost naturally. Conflicts with the central government may add to a distorted and unreliable insolvency framework. With respect to the bank failures this could imply that the urgently needed separation of viable and unviable banks und thus banking sector reforms in China are severely disrupted[502]. Since the government has to bear the financial burdens of this process the incentives to introduce a strict insolvency law may be reduced since with time

498 Also in Western countries borrower protection can be strong under rules such as Chapter 11 in the United States.

499 Debt disposal can generally be loan collection and filing a bankruptcy case against the debtor, selling collateral or selling or securitizing the loans. Debt restructuring such as debt-equity swaps can have significant advantages for creditors and debtors and may have beneficial repercussions on the economy; see [Lou, 2001], p.149. In China some issues like securitizations are just evolving.

500 [Lou, 2001], p.307ff.

501 Compare [Lou, 2001], p.154f.

502 Bank closures can increase market confidence, can reduce overcapacities and moral hazard and allows the authorities - and thus the tax payer - to share the costs of failure with the shareholders and subordinated debt holders. They signal the political will to solve banking sector problems and can thus

costs may be reduced too. With limited capacities at the CBRC to identify unviable banks the incentive is increased to let unviable banks continue their operations. Also the other state-affiliated commercial banks may have a reduced incentive to push for a new insolvency law since assets and liabilities of failed banks have often been transferred to them. While the reluctant application of the administrative closure mechanism may have postponed, reduced or externalized the costs of failure it has certainly slowed down the commercialization and reform process of Chinese banks[503]. The consequence of these reduced property rights of the banking sector and the complex multiple-principle and multiple-agent situations are unclear competences, discretion and hence a reduced predictability of insolvency procedures. Hence, capital adequacy, asset quality and management soundness are negatively influenced by the current incomprehensive insolvency procedures. As a consequence, market risks for banks increase, contagion is more likely and economic growth and the fiscal position suffer[504].

A similarly blurred setting can still be found concerning the institutional framework for the lender of last resort, deposit insurance and government guarantees. So far, none of these functions is clearly defined even though some clarifications are underway. In fact, this framework evolves among conflicting interests between banks and government agencies. Many state-controlled banks consider today's mix of lender of last resort support and implicit or explicit state guarantees as a logical consequence of historic political lending which has diminished their profitability. Agencies like the CBRC are today urging for a more explicit security net, especially through - preferably private - deposit insurance[505]. This scheme could be mandatory for domestic deposit-taking institutions with a possible inclusion of foreign banks. The ongoing investment policies of the People's Bank increases government ownership and control in the banking sector but can hardly be described as part of a lender of last resort

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help to restore market confidence. This was he case in Russia in 1995 where several small banks were closed; see [Lou, 2001], p.49.

503 During the Asian financial crisis many small insolvent or nearly insolvent banks were closed to signal that policies of forbearance were abandoned. Regulatory forbearance in case of technical insolvency is often supported in case of exogenous shocks when banks are fundamentally sound, have good governance structures and a prudent credit culture. If these preconditions are not met in many cases more costly bailouts followed later. Japan is one example where authorities have misinterpreted the state of the banking sector and have hence applied regulatory forbearance inadequately; see [Lou, 2001], p.52.

504 These types of environments are also more susceptible to further risks such as herding phenomena and creditor passivity since all banks involved have a reduced incentive to monitor the borrower. For a more detailed discussion on this see [Mitchell, 1993].

505 The relevant chapter concerning depositor protection - chapter 3 of the Central Bank Law - was introduced on the initiative of delegates of the NPC and the fact that private claims can be superior to tax claims is actually remarkable. Article 33 of the Commercial Bank Law; Article 79 provides that depositors are granted priority in case of bankruptcy - but only after wages and labour insurance in arrears is paid out.

activity. Despite the generally negative implications of government ownership in the banking sector the implied shift of control from sub-national governments to the central bank can be assumed to set positive incentives for further bank reforms. Since the central bank and the CBRC can be assumed to pursue serious efforts to stabilize the banking sector, this shift of control can imply less conflicts of interest, less political interference and finally a more efficient capital allocation. In addition, solvency problems are alleviated which increases trust levels and reduces the possibility of bank runs. The downside of the chosen policy approach is a case-by-case system with lacking transparency and shifting rule patterns. The resulting constructive ambiguity for the government reduces predictability and may invite government discretion and lobbying of particular interest groups. The lack of transparency also reduces the incentives for banks to develop adequate risk-management techniques and to conduct more sophisticated cost-benefit analyses of projects. However, this government flexibility also reduces moral hazard in the banking sector since government assistance and its actual extent remain slightly unpredictable[506]. So while incentives for sound management are reduced and lending booms become more probable the lender of last resort positively affects bank risk positions, liquidity and reduces the risk of contagion.

Basically, the same incentive-based problems of interaction arise in the case of government guarantees where fiscal costs for bail-outs may even exceed costs of deposit insurance systems since assistance tends to cover up to 100 percent of deposits[507]. Here, government assistance increases the risk of continued moral hazard since banks still perceive official assistance as legitimate and just since they have been used as a fiscal surrogate in the transformation years to subsidize unproductive and inefficient state-owned enterprises. This diminishes experience and learning effects, e.g. in risk management and in dealing with non-performing loans. Consequently, Chinese banks may have a reduced incentive to support a private and mandatory insurance fund financed by all banks. If introduced, the discussed deposit insurance scheme could again foster moral hazard issues when the initial money

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506 Constructive ambiguity has often been supported by central banks while the original blue-print implies a publishing of the exact terms of the lender of last resort function, its scope and terms; compare [Zhou, 2001], p.167.

507 The particular ownership structure and the existence of implicit guarantees in make insurance schemes quite complex and price distortions could result when differential treatment would be applied for private and state-owned banks. Stability risks implied in insurance schemes occur concerning the financing, the organizational structure of the scheme, the legal codification and especially in misaligning the incentives. Risk-based fees solve the first. The independence of the insurer - perhaps a government agency with independent competencies especially in this capacity - would be useful to overcome the second risk group. A rules-based system would solve the third. Defining the scope, the volume and more details of the insurance scheme could help align the incentive in an adequate way. The timing for the introduction of the explicit deposit insurance system is problematic due to the implied signal; see [Lou, 2001], p.292ff. and p.300.

would be paid-in by the People's Bank[508]. While Chinese banks could obtain a competitive advantage if foreign banks would be excluded form the scheme it is unlikely that they would lobby for such a decision since the better risk-profile of foreign banks could reduce the failure ratio and thus the contributions. Some analysts have suggested voluntary deposit insurance with risk-based premiums accompanied by a reduction in business taxes for banks[509]. Under the current circumstances the result could be an inversed adverse selection since unviable banks could not afford the premiums and would continue to rely on government assistance to socialize costs to the taxpayer. It is also questionable how the reputation of deposit insurance would evolve when soon after its introduction even a small number of banks would collapse[510]. Hence, the government agencies may have an incentive to postpone its introduction for some time until the financial condition of Chinese banks has further improved. As a consequence the existing opaque institutional setting with the implied distorted incentives for banks and government agencies has fostered partly incoherent government activity and has not supported the commercialization of banks and the needed mentality change. These unaligned interests have disturbed bank asset quality, management soundness and bank profitability. The fiscal position suffers from recapitalizations and implicit liabilities and the risk of excessive lending is increased.

## 2.2. Formal Market-Stabilizing Institutions

### 2.2.1. Capital Markets

The legal framework for the stock, money and bond markets has rapidly evolved over the last years. Since 1994 the capital markets have been regulated and supervised by the China Securities Regulatory Commission. Among the most relevant rules and regulations for the stock markets are the Provisional Regulation on the Administration of the Issuing and Trading of Stocks of April 1993[511] and the Securities Law of December 1998. The twelve chapters of the Securities Law promulgate the rights and obligations of the market participants including

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508 Almost all developed and many developing and transition countries have introduced a deposit insurance system while arguments for or against are both not strictly convincing. Hence, many scholars assume a political and economic necessity for depositor bail-outs in banking crises. On the Doctrine of Necessity see among others [Lou, 2001], p.288. As discussed above capital standards are often preferred to deposit insurance schemes – among others since the loss of confidence can easily be spill-over to the insurance scheme; see [Zhou, 2001], p.116f.

509 See JPMorgan, Asia Pacific Equity Research, 5. October 2005, p.32.

510 It will also be interesting which agencies will be responsible for managing and monitoring the deposit insurance and whether new agency problems and thus inefficiencies occur in the chosen setting.

511 For a more detailed description of the legal framework of the securities market see [Vortmüller, 2001], p.69ff.

the regulator and set the frame for securities trading[512]. For example the reasons for permission or denial of public offerings have to be published to create a certain degree of transparency. The issuer is also held accountable for the correct use of the revenues from going public - as outlined in the prospectus[513]. In several provisions the new Securities Law promotes corporate governance, e.g. that issuers of shares have to adhere to the provisions of the Company Law of 1994[514]. The China Securities Regulatory Commission announced in April 2005 that it would prepare and allow the floatation of the so-called legal person or non-tradable shares so far in the hands of provinces, cities or the central government[515]. These account for about two-thirds of the domestic A-share market capitalization. A pilot program was initiated with 46 companies whose shareholders had to accept the floatation plan with a two-thirds majority[516]. In part to offset this negative effect for stock market development by enlarging the investor base the CSRC allowed foreign strategic investors to buy A-shares through the Qualified Foreign Institutional Investor QFII Scheme end of 2005. Even though the regulator can set upper limits to purchases no lock-up or holding period is attached. In this context the CSRC has also increased the proportion of insurance and pension capital allowed to be invested in the stock market by almost 5.6 percent of the market capitalization[517]. With household savings at around twelve trillion RMB and approximately eight trillion RMB in corporate savings the potential for stock market development is still significant[518].

Since the Commercial Bank Law restricts the refinancing of long-term investments by short-term funds from the interbank market the use of interbank credits are limited and the

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512 While foreign investors are subject to additional regulation, the Securities Law itself makes no distinction concerning the origin of the investors.

513 Article 20 of the Securities Law.

514 See article 11 of the Securities Law.

515 They account for around two-thirds of the total market capitalization of companies listed in the two stock exchanges of around 400 billion US Dollars. Despite the booming economy the perspective of a selling-off by the government has depressed stock markets since the year 2001 despite the general upwards movement of other Asian stock exchanges. Other reasons such as political risks, lacking transparency and regulation, and exchange rate risks also contribute to the relatively weak stock market development; see FAZ, “Chinesischer Aktienmarkt bewegt sich im Niemandsland”, 3. May 2005, p.22.

516 It was also discussed to introduce additional regulation to limit other share floatation to channel investment to legal-person shares. With 240 billion US Dollars in legal person shares this may induce Chinese companies in need of capital to list in foreign stock markets. Further the buyers have to cling to the shares for at least one year and a ceiling of five percent of a company’s equity in the years after; see The Economist, “Hangover cure”, 7. May 2005, p.72 and FAZ, “Chinas Aktien auf Neunjahrestief”, 10. May 2005, p.25.

517 This stands for around six billion US Dollars with a market capitalization of around 900 billion RMB or 111 billion US Dollars at that time in 2005.

518 See China Daily, 8. November 2005, p.11, “Stock market embraces reform“ by Chen Hua.

importance of bonds has risen steadily[519]. Bond market regulation is in many parts very specific with rules, directives or provisions designed to channel economic interaction in different product groups and markets. For example the Administrative Rules for the Issuance of Financial Bonds in the National Interbank Bond Market state some criteria under which a commercial bank is allowed to issue financial bonds. Those include sound corporate governance, a core capital ratio of minimum four percent, adequate loan-loss reserves and three successive profitable business years[520]. Others, such as the Rules on Forward Bond Market Transactions in the Interbank Market[521] or the Administrative Rules for Pilot Securitization of Credit Assets[522] have added further financial instruments to the market participants. Especially the latter set of rules was a major step to enhance structured finance, protect the rights of parties involved in these transactions and to provide another opportunity to transform credit risks. Since 2002 the PBoC has changed the bond issuing procedures from an examination and approval system to a recording and access system which has facilitated market access. Many commercial banks have bond settlement agencies which pool business of small and medium sized financial institutions which otherwise would be too small to operate in the bond market. With the opening of book-entry government bonds[523] to the retail market it has opened investment alternatives - compared to standard deposits - for individuals and enterprises. Since February 2002 individuals and institutions are allowed to trade newly issued bonds in the interbank market.

In practice, the development of the stock, money and bond markets in China has been a mixed experience for market participants in the last years. For example in the mid 1990ies the newly founded bond market was shaken by scandals due to regulatory gaps, inefficiencies in monitoring possibilities and unclear competencies[524]. In a bank-centrist economy like China where banks provide approximately 90 percent of corporate finance it could be assumed that

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519 See paragraph 46 of the Commercial Bank Law; [Li, 1997], p.209.

520 Article 7 of the Administrative Rules.

521 These specify that financial bonds are permitted to be traded in forward contracts in the market - conditioned and only by certain actors, however; see PBoC Announcement No. 9 [2005]

522 April 2005. These Rules are referring to a large number of other laws and regulations, among many others the Trust Law, the PBoC Law, Commercial Bank Law, and PBoC Announcements such as No.14 [2005] and No. 15 [2005] on organizational and procedural details and information disclosure.

523 For example in 2004 the government issued 14book-entry T-bonds valued 441.39 billion RMB.

524 The so-called 327 Treasury bond futures market scandal in 1995 almost took down the bond market entirely. The Treasury bond future contract no.327 was a three-year contract ending mid 1995. Here traders of Wanguo securities expected lower interest rates and then tried to manipulate the markets by selling futures contracts in the last minutes to reduce losses. This scandal and another scandal with contract no.319 lead to the closure of futures markets in May 1995. For more details see [Green, 2003], p.20.

bank loans are the main source of capital for companies. However, studies suggest that only 19 percent of the financial resources of private companies with employee numbers between 51 and 100 originate from bank loans[525]. This growing segment illustrates the importance of the capital market for private sector development and the banking sector performance[526]. The market capitalization of the two stock exchanges in Shanghai and Shenzhen is currently only at around 40 percent in GDP terms[527] which, however, is a significant increase from around 15 percent in 2001[528]. The stock market remains very fragmented due to the multitude of share types and the different trading locations[529]. Compared to the large and liquid market for A-shares the B-market is underdeveloped and hence induces investments of Chinese investors and foreign investors via price discounts[530]. In mid 2005 1,378 companies were listed in the stock exchanges with direct government shares existing in around 65 percent of them[531]. A-shares form around 78 percent of the tradable shares and accounted for a market capitalization of around 1,020 billion RMB market capitalization. Listed companies have raised around 930 billon RMB in equity capital in the Chinese stock market since its establishment[532]. Ten percent of the companies listed are categorized as special treatment by the regulator meaning that they suffered losses in at least two consecutive years[533]. Due to CSRC regulation each A-share company has to reform its shareholders structure before issuing further equity.

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525 See IFC/AusAID study “China's Emerging Private Enterprises: Prospects for the New Century”, www.ifc.org/ifcext/pressroom/ifcpressroom.nsf/PressRelease?openform&64891F3A0ADAAD4D8525698400761EEF.

526 On corporate reform, corporate profits and the link to stock markets see [Green, 2004].

527 See for example www.mekongcapital.com/mr_inv.htm. The numbers vary between 20 and 40 percent depending on the basis.

528 Since many non-traded shares of state-enterprises are included in the market capitalization this figure cannot be taken in comparing the success of stock markets. Many analysts only consider tradable shares (A and B) for comparison. The mainland stock markets are still not considered a good financing alternative for companies that need to raise capital to finance expansion. The low stock index Shanghai composite has lost in significantly during 2004 and beginning of 2005 and hence many large companies float their share and go public in foreign stock markets; see [Green, 2003], p.34f. For example the fourth largest Chinese insurance company New China Life Insurance Co. opted for a foreign listing to generate up to 800 million US Dollars from this public offering, see FAZ, 5. April 2005, p.21.

529 [Tong, 1999], p.68f.

530 A merger of the A- and B-market is expected by some observes when the exchange rate regime has been liberalized; see [Vortmüller, 2001], p.96.

531 The national interbank funding and bond market included 1,037 members in 2004 up 119 from a year before.

532 The IPO of the CCB in Hong Kong raised around eight billion US Dollars for twelve percent of the bank's capital. Despite the high involvement in the property sector and general reservations concerning asset quality domestic and international investor interest was high, especially among institutional investors. Private investors were entitled only to a share of five percent which was oversubscribed 42-fold; see Börsen-Zeitung, 21. October 2005, “China Construction erlöst 8 Mrd. Dollar”.

Additionally, the initially unpopular stock reform program depressed stock prices in China since 64 percent of the outstanding 735.6 billion shares are legal shares[534]. The plan, unveiled in April 2005 includes the floatation of around 200 to 250 billion US Dollars worth of government holdings and their conversion into free-floated stock. After an the initial negative reception of the floatation plan the stock market again gained around 10 percent in the weeks between July and August 2005. In general, however, private investors and the public in general remains reluctant concerning the stock market as a recent PBoC survey in June 2005 revealed. Only 5.6 percent of urban households were planning to invest in stocks compared to 10.6 percent a year earlier. Due to regulatory restrictions portfolio investments of foreign investors are still small compared to the large influx of foreign direct investment[535].

Contrary to the stock markets, primary and secondary interbank bond markets have been developed by a more proactive fiscal policy and issuances by the Ministry of Finance since 1999. Government debt still dominates the bond market in volume and only politically well-connected companies have so far issued bonds despite the search for alternative investment opportunities by state-owned banks and fund management companies - which are the main investors in these bonds[536]. The liquidity of the bond market is still low despite high volumes of around five trillion RMB outstanding mid 2005 and in 2004 the turnover volume in the secondary market even fell by 20 percent. To foster market development commercial banks may soon receive the permission to issue long-term bonds and the regulators have already granted permission to several international institutions to issue bonds denominated in RMB, so-called Pandas[537]. So far, the China Development Bank has been the official developer of bond markets, e.g. by issuing subordinated bonds or offering floating rate bonds[538] in an environment where interest rate risks get increasingly important. The bond market is now

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533 See China Daily, 25. August 2005, p.9, “Share reform extended to whole market” by Chen Hua.

534 See China Daily, 25. August 2005, p.9, “Share reform extended to whole market” by Chen Hua. The pending floatation has contributed to a decrease in the Shanghai A-market of 17 percent between mid 2004 and mid 2005.

535 Foreign direct investment in China in the first half of 2005 has decreased by 3.8 percent year-on-year to 28.56 billion US Dollars; see FAZ, 15. July 2005, p.13, “Leichte Abkühlung in China”. In 2004 China has attracted around 60 billion US Dollars, topping the world as a destination for foreign direct investment even though emerging market investors are getting more reluctant today; see www.scmp.com, 13. July 2005, “Tax breaks for foreign investors to stay”.

536 There is still a lack of corporate bond issues; see for example [Hansakul, 2004], p.8.

537 The Asian Development Bank, the International Finance Corporation, the Asian Bond Fund and the German Kreditanstalt für Wiederaufbau. In February 2005 the PBoC, the State Development and Reform Commission and the CSRC have released the Provisional Administrative Rules on International Development Institutions´ Issuance of RMB bonds allowing qualified international development institutions to issue RMB bonds in China to promote the domestic bond market.

further developed by the introduction of mortgage-backed securities after forward trading in government bonds and the permission for corporations to issue short-term debt have already been granted[539]. For example, in 2005 asset- and mortgage-backed securities were issued by major state-owned banks, i.e. the China Development Bank and the China Construction Bank which also have been authorized to pilot a secondary mortgage market. The volume of commercial papers is increasing and partly already substitutes working capital loans for larger companies. Growth rates of over 20 percent can be observed and commercial papers account for around 13 percent of new loans. The interbank money market also has a proportion of around 30 percent in commercial papers indicating the growing importance of this instrument[540]. Problems in the capital markets remain in constructing a unified yield curve since the treasury - contrary to the PBoC - issues no short-term bills up to one year so far[541].
While the interbank market usually is a secondary market its true importance for the Chinese banking sector is its collateralized refinancing function for banks at market-driven rates[542]. The fast-growing volume of the interbank money market and the high proportion of repurchase contracts - so-called repos - traded relative to normal spot trading seems to indicate that market participants use the market as a money market for periods of less than a year[543]. A large proportion of the products traded in the interbank market are bonds of the Ministry of Finance and - even more significant - those of the People's Bank which had to sterilize its monetary and exchange rate operations.

### 2.2.2. Fiscal Policy

While state-owned banks have acted as a fiscal surrogate during China's economic transformation the fiscal capacities today are also a determinant of banking sector stability due to the still large restructuring costs of the financial sector. Additionally, tax regulation applicable for banks has a strong influence on bank profitability and business activities. With

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538 Those have benchmarks such as the seven-day repo rate.

539 See www.scmp.com, 17. June 2005, “Architects of China's bond market face a learning curve” by Tom Holland.

540 In Q12005 according to PBoC China Monetary Policy Report.

541 Despite the same risk categories the segmentation does not allow for a unified yield curve which could be helped by a shift towards a unified management of outstanding debt; Wu Xiaoling at the Annual Conference of China Economic Forecast, Analysis and Outlook, 20. March 2005, “Improving Monetary Policy Transmission, Creating a Sound Financial Environment”.

542 Market participants in the interbank market are domestic and foreign banks, non-banks and institutions such as securities corporations. Only enterprises and individuals are not admitted. Market participants have to register in Beijing at the China Bond Custody Center where the accounts are kept.

543 However, volume caps for interbank refinancing bind.

an official fiscal balance of minus 1.6 percent of GDP after 2.5 percent in 2004[544] and an improving government external debt volume of 9.8 percent of GDP a first-sight analysis portraits a rather comfortable position[545]. Government revenue has increased by 21.4 percent in 2004 for example due to more efficient tax collection mechanisms which have reduced the importance of local authorities. Fiscal revenue grows steadily but growth is decelerating due to smaller import growth and higher exports[546] and other projects such as the trial implementation of a value-added tax reform which have negatively influenced tax revenues[547]. Despite the growth of fiscal expenditure by more than 15 percent the net fiscal surplus still increased to almost 260 billion RMB[548]. However, serious challenges for the budget are looming. Distribution issues have arisen due to strong income disparities on the household level[549]. According to the more "harmonious" approach to economic development fiscal resources are increasingly allocated for rural development. Additionally it is assumed that local governments have illegally underwritten around 100 billion US Dollars in loans to foster investment projects[550]. The ratio of non-performing loans in state-owned banks is still high and it can be assumed that further resources will have to be allocated to broadly stabilize the banking sector. Considering slowly rising global interest rates fiscal sustainability also depends on the interest rate level - which could be a test for the independence of the People's Bank[551]. This fact is contributed to when the large implicit liabilities and necessary investments of the Chinese government in e.g. infrastructure, pension and health care systems are accounted for[552]. These factors reduce the fiscal capacity to recapitalize and stabilize the banking sector in times of continued distress.

Tax policies themselves have a more direct impact on banking sector development and its performance. The income tax for banks as a proportion of profits is at 33 percent and the

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544 The Economist, "Budgeting for harmony", 19. March 2005, p.58.

545 Other data see DB Research. Concerning maturities, short-term debt has increased in absolute terms but in relation to foreign reserves it has decreased to around 15.6 percent with slight increases projected.

546 This implies less import tax revenue and higher tax rebates for exporters.

547 Tax breaks in areas like real estate where excessive borrowing could pose a threat to bank loan books have been reduced or abolished.

548 The Economist, "Budgeting for harmony", 19. March 2005, p.58.

549 Also for 2005 urban incomes are projected to increase by six percent while growth of rural incomes is forecasted to be at around five percent; see The Economist, "Budgeting for harmony", 19. March 2005, p.58.

550 See The Economist, "China's banks: Root and branch", 4. November 2004, p.77f.

551 Government debt servicing only took around five percent of the budget in 2002; see The Economist, "Behind the mask, A survey of business in China", 20. March 2004, p.17.

552 The new compulsory contribution-based pension system of 1997 invests in a mix of government bonds and bank deposits.

additional business tax on gross business income has been reduced to 5 percent. Foreign banks have to pay a preferential income tax rate of only 15 percent and the business tax of 5 percent[553]. The preferential treatment of international investors may be reduced soon according to internal discussions to increase the income tax to a level somewhere between 20 and 28 percent. General loan loss provisions are tax-deductible up to one percent of total assets while special and specific provisions - the latter have a significant importance for bank stability - are not tax deductible.

### 2.2.3. Monetary Policy

#### 2.2.3.1 Exchange Rate Regime

Since July 2005 the Chinese Yuan is pegged to a currency basket. The central parities are determined daily within a band of 0.3 percent around the respective official central parity towards the US Dollar[554]. Since September 2005 the RMB can fluctuate by three percent each day against the Euro, Yen and other non-US Dollar currencies[555]. Interventions by the People's Bank are still widely assumed while the PBoC has stated that key economic indicators and market forces play in increasing role in the determination of the exchange rate[556]. The Chinese government reiterated that no administrative measures would be taken to

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553 When competing with domestic banks in areas such as RMB business this tax preference does not apply.

554 The exact operational modus remains vague. In a first step the exchange rate appreciated from 8.28 US Dollars by 2.1 percent to 8.11 US Dollars per Yuan. Without publishing the specific weights the People's Bank has disclosed that the main basket currencies are the US Dollar, Euro, Yen and the Korean Won. Also included albeit with lower weights are the British, Singaporean, Malaysian, Russian, Australian, Thai and Canadian currencies. It is estimated that the Dollar has a weight of around 43 percent, the Yen of around 18 percent and the Euro of around 14 percent since the weights are determined on the basis of trade patterns, FDI flows and foreign debt of China; see The Economist, 11. August 2005, “The Yuan, Chinese Puzzles”. Due to the high proportion of US Dollars in China's trade the basket has been criticized for being too complicated; see www.scmp.com, 19. July 2005, “3pc yuan trading band advocated”.

555 After 1.5 percent before. To offset disadvantages towards China other Asian countries including Japan tend to manage their currency at a reference rate towards the US Dollar; see FAZ, “Yuan-Spekulationen”, 13. October 2004, p.19. The Bank of Japan has bought US Dollars in large volumes to offset the Dollar fall. Around 65 percent of the US Dollars bought by Asian Central Banks between 2003 and November 2004 were bought by the Bank of Japan - mostly US treasuries; see FAZ, “China, Russland und Indien sammeln hohe Dollar-Reserven“, 10. May 2005, p.27.

556 These indicators would include macro indicators (trade figures, capital account variables, employment, GDP growth), micro indicators (performance and profitability of Chinese banks and export-oriented businesses) and figures such as domestic demand; see www.scmp.com, 26. July 2005, “Twin strategy to keep yuan in check” by Cary Huang.

interfere with the exchange rate[557]. The risks involved in the currency revaluation for large mainland banks are mitigated due to safeguard measures which protect the operations and the capitalization of mainland banks in case of revaluations of the Yuan[558]. Additionally, Chinese banks tend have only a small fraction of their assets and capital in foreign currencies[559]. Generally, Chinese banks have to keep outstanding foreign currency loans at or below 85 percent of the respective foreign currency deposits and on an aggregated level, China's foreign reserves cover a multiple of its external debt[560]. However, since capital injections e.g. for the Bank of China and the China Construction Bank were denominated in US Dollars the revaluation had a direct impact on the capital ratios of these banks[561].

The Chinese exchange rate regime allows for convertibility of the Renminbi concerning transactions in the current account since 1996. While some restrictions on capital outflows were eased in 2005[562] there is still no full convertibility in the capital account[563]. The downside of the high and growing foreign exchange reserves of 818.9 billion US Dollars illustrate the downside of China's currency peg[564]. Despite sterilization efforts by the PBoC concerning the control of monetary aggregates remains difficult. In this context the proportion

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557 See for example Shanghai Daily, 10./11. September 2005, p.9, “PBoC: RMB trading band will expand”.

558 Also the PBoC would suffer significant losses due to its large US Dollar reserves. A Yuan-appreciation of ten percent would generate PBoC balance sheet losses of around three percent of GDP; see The Economist, „A license to lose money“, 30. April 2005, p.70.

559 The Bank of China with its around 45 percent of assets in foreign currencies held for example through its Hong Kong branch has one of the highest exposures.

560 The People's Bank approves long-term foreign exchange borrowing and grants quotas, e.g. for 2005 the volume is 90 billion USD, short-term borrowing is controlled by SAFE. External debt is at 12.3 percent of GDP (273 billion US Dollars) and foreign reserves (excluding gold) at 818.9 billion US Dollar; data for end 2005; see Deutsche Bank Research.

561 The injection was conditioned to be held in US treasuries without permission to convert them into other currencies, securities or cash. Huijin has secured part of the risks as Chai Ping - its head - has stated.

562 The Economist, “Putting things in order“, 19. March 2005, p.78.

563 This includes hard currency purchases for trade finance and debt-servicing of foreign currency loans. The latter includes the possibility for foreign firms and joint ventures to remit profits abroad. It would also include the possibility for Chinese individuals and companies to use hard currency to buy foreign currency denominated financial assets; compare [Sommer, 2002], p.118f. SAFE cash management rules state that for incoming capital flows only up to 10,000 USD per day can be converted. Some banks can circumvent this to a certain degree by using different time windows for one transaction.

564 Data see Deutsche Bank Research for 2005. Some analyst attribute the large foreign reserve position by reductions of US Dollar holdings by Chinese firms or individuals and an increased US Dollar borrowing by them; [Ma, 2005], p.6. The high amount of foreign exchange reserves is often quoted as an argument that the Renminbi is undervalued. Recent adjustments in the national statistic and accounting have shown that the Chinese GDP was around 15.99 trillion RMB, export proportion of the GDP sank from 34 to 29 percent while the service industry increased its share from 31.9 to 40.7 percent of GDP. This shows that imbalances are not as high as expected by many analysts.

of speculative capital inflows has increased[565] to capitalize on a Yuan appreciation[566]. The SAFE has announced that capital controls will be further released for domestic enterprises conducting business abroad. For these companies Chinese banks are granted an external loan guarantee quota within which they can directly provide credit to Chinese companies abroad in foreign exchange to support their international expansion[567]. These new regulations of SAFE are a generalization of pilots from 24 areas such as Shanghai, Beijing and Zhejiang[568].

The recent reforms in the currency market include that several non-banks are allowed to trade in the spot market and more banks can operate in forward-trading while swaps are introduced to the onshore market[569]. The volume of forward contracts traded so far is, however, small[570]. The central bank has set the upper limit for bid-offer-spreads at one percent of the daily quotation for RMB/US Dollar which banks can offer retail clients[571]. China has named 13 market makers in January 2006 which have to guarantee RMB quotations at any time, e.g. to

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565 Using non-FDI investment as a proxy or the increase in foreign reserves minus FDI flows minus trade surplus. The reserve accumulation since 2003 has been fostered by large non-FDI capital inflows by almost 50 percent. Analysts interpret this fact and the fact that non-FDI inflows are still largely regulated that the capital controls are ineffective as either incomplete or leaky; see for example [Ma, 2005], p.3. This suggestion is backed by data from different accounts such as errors and omissions and positions such as remittance inflows. However, research based on interest rate spreads between onshore RMB money markets and their offshore counterparts imply that the Chinese capital controls are quite effective since large and persistent spreads remain. Based on the cross-border arbitrage condition [Ho, 2004] analyze these dynamics. The segmentation in interest rate spreads between onshore and offshore yields for non-deliverable forwards on RMB funds implies that markets are segmented and that the Chinese monetary policy has certain degrees of freedom and independence; for a detailed discussion see [Ma, 2005].

566 Estimates for revaluations under market conditions have a wide range from zero to more than 40 percent. For example [Caplen, 2005], p.46 estimates a surge by ten to 20 percent.

567 See for example www.scmp.com, 19. July 2005, “Forex controls relaxed for offshore operations”.

568 In this context both forex quotas for foreign exchange bureaus and deal volume caps have been increased to ease the situation for companies. The US Dollar quota per exchange bureau was increased from 3.3. billion US Dollars in the pilot zones to 5 billion and the deal volume caps were increased from 3.3 million US Dollars to 10 million, see www.chinaembassy.org, 19. July 2005, “China to ease capital controls on companies”.

569 See the PBoC's “Notice on Issues Regarding Expanding Designated Banks´ Forward Sale and Purchase of Foreign Exchange Business to Customers and Launching RMB Swaps against Foreign Currencies”, PBoC Document No. 201 [2005]. Due to this regulation an bank which has obtained licences for spot sale and purchase as well as derivatives trading is entitled to deal in forward sale and purchase of forex after registration with SAFE.

570 Banks trading forex forward contracts can apply with the People's Bank for permission to offer forex swaps after a period of around six months. This involves the spot and future exchange rate as well as the interest rates of  e.g. RMB and US Dollar borrowing rates.

571 For this and more information on this topic see JP Morgan Asia Pacific Equity Research, 5. October 2005, p.8.

foster the development of an interbank forex market[572]. Seven international banks and two Chinese banks have been chosen as market makers for foreign exchange trading[573]. Under the supervision of the SAFE, the State Administration of Foreign Exchange these banks have formed the China Foreign Exchange Trade System - an interbank swap market - in which currency prices for eight floating currency pairs are quoted[574]. The introduction of a money broking system in China has created create intermediaries who can trade foreign exchange into RMB at low cost.

#### 2.2.3.2 Interest Rate Regime

Due to the Interim Regulations on Bank Administration of 1986 and the Interim Provisions on Interest Rate Administration of 1990 the PBoC is formally in charge of setting the interest rates[575]. The benchmark interest rates of the People's Bank are the required reserve and excess reserve rates[576]; the rates on special deposits of financial institutions[577] at the PBoC; the rates on loans to financial institutions; and the rediscount rates[578]. The Commercial Bank Law and the 1999 Provisions on RMB Interest Rate Administration still confirmed ceiling and floor interest rates around reference interest rates[579]. However, in April 2005 the central bank has removed the deposit rate floor and the lending rate ceiling. Hence, the People's Bank today still controls the interest rate spread and some specific interest rates[580].

572 Initially seven international and two Chinese Bank were chosen. In addition to the Bank of China and the CITIC Industrial Bank those are the HSBC, Citigroup, Deutsche Bank, ABN Amro, ING, Royal Bank of Scotland and the Bank of Montreal. Four banks were added, e.g. Standard Chartered.

573 The State Council and the CBRC in June 2005 released pilot management regulations for money brokers in the foreign exchange market which allow Sino-international joint-ventures. International brokers such as ICAP have already secured joint ventures with for example the China Foreign Exchange Trade System; see China Business Weekly, 1.-7. August 2005, p.5, “Big breaks”.

574 This includes for example US Dollar-Sterling and Euro-Yen pairs; see The Economist, “Softly, softly“, 2. April 2005, p.66. Institutional investors are allowed to trade Renminbi against US Dollars in the Chinese interbank market.

575 See articles 42 and 45 in the Regulations on Bank Administration.

576 Interest on mandatory reserves is not very common so that this can be seen as a peculiarity of the Chinese financial system.

577 In this case insurance companies, policy banks and rural credit cooperatives.

578 Additionally, the central bank has reintroduced a term structure in interest rate management in 1993. The maximum maturity for central bank loans to the banking sector is now one year with increasing interest rates in the four maturity ranges from under twenty days to one year; see [Wei, 2000], p.103f. See also Article 23 of the Central Bank Law.

579 Renminbi lilv guanli guiding, effective in April 1999.

580 The actual bank interest rates are determined by the legal persons of the banks, e.g. the presidents and boards. The Chinese interest rate spread creates one of the largest margins in the world. Deposit rates have been between one and two percent in the last years generating spreads of around three to four percent. Since 1996 real deposit interest rates have remained mainly positive. Before, negative interest

Benchmark interest rates are usually set by the central bank in a consultative process with major banks and the Ministry of Finance. As a result, the interest rate structure is still quite complex and differentiates e.g. between types of lenders, borrowers, and maturities[581]. In general, rural credit cooperatives have larger degrees of freedom in determining their interest rates while urban and national banks are subject to unified interest rate structures[582]. Short-term and interbank rates are completely liberalized since the mid 1990ies[583] but all other RMB business is subject to regulated interest rates - even though liberalization proceeds fast. Interest rates for US Dollar deposits in mainland accounts exceeding three million are negotiable[584]. Additionally, the People's Bank can set lending targets, e.g. some small banks have to lend 70 percent of their funds to small and medium enterprises. The monetary transmission mechanism is still impaired by insufficiently evolved monetary instruments and a current high level of liquidity. Since 1999 the single interbank market facilitates open-market policies to control monetary aggregates and liquidity[585]. Positive signs for change can thus be found - for example in August 2003 when the interbank interest rates increased and bond quotations dropped due to a more restrictive monetary policy in form of an increase of the minimum reserve of banks with the Central Bank[586]. The differential between market rates and the People's Bank's discount rates is an indicator of the current monetary policy of the Central Bank[587].

From October 1997 to May 1999 the PBoC lowered interest rates five times so that interbank interest rates fell from 9,2 percent to 2.6 percent in the same time[588]. In April 2006 the People's Bank raised interest rates for the second time in 18 months by 0.27 percent[589]. It also

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rate spreads were coped with by banks by issuing more bonds which increased from 15 to 38 billion US Dollars between 1993 and 1999.

581 This has improved immensely since for example in the mid 1990ies the PBoC still determined around 200 different loan rates; see [Wei, 2000], p.104f.

582 E.g. some early pilots enabled specific rural cooperatives to exceed the basic PBoC credit interest rate by 100 percent and the deposit rate by 50 percent with special permission. Usually, 50 or 70 percent for lending and 30 percent for borrowing can be realized.

583 [Carrasco, 2003], p.4

584 Since September 2000.

585 Some commercial banks are allowed to directly trade in treasuries, debentures and PBoC bills; see e.g. [Carrasco, 2003], p.4.

586 The minimum reserve was then increased by one percentage point to seven percent; see FAZ, “Zinsen in China schnellen hoch”, 27. August 2003, p.21.

587 [Wei, 2000], p.142ff.

588 This created liquidity needed after the Asian financial crisis and initiated the moderate interest rate policy pursued since then by the PBoC.

589 In October 2004 it had raised rates from 5.31 to 5.58 percent and abolished the ceiling on commercial loan rates to enable banks to increase risk-spreads for riskier borrowers. See e.g. The Economist, 29.

lifted reserve requirements in an administrative approach to clamp down on investments. As a result in the interbank market the RMB transactions volume increased further and the interest rates showed some upwards movement[590]. To facilitate the effectiveness of monetary policy tools the interest rate on excess reserves was decreased to reduce the money market rate to a level more in line with the actual high liquidity position of many banks. Open market policies can thus have a more direct impact on the interest rate level in the money market[591]. Broad money has grown above target in the last years even though money growth decelerated more recently while the monetary multiplier has accelerated slightly [592]. The structural drivers for these high growth rates are household savings and corporate time deposits. The monetary targeting framework applied by the PBoC aims at M2 - with a target of 15 percent and actual growth at around 18 percent[593] - by controlling base money with open market operations,

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April 2006, “Struggling to keep the lid on”, p.59f. and The Economist, 4. November 2004, “China's Banks: Root and branch”, p.77f. Also the interest rates on small-value foreign currency deposit rates have been increased to provide incentives for depositors.

590 In November 2005 the monthly-weighed interest rate for interbank borrowing stood at 1.5 percent and for pledged-based bond repurchase at 1.17 percent which meant an increase of 0.06 percentage points in comparison to October 2005.

591 The timing was not considered ideal but more effective risk management and a stricter enforcement of capital adequacy allowed for it in the official argument.

592 At the end of November 2005 M2 stood at 29.24 trillion RMB which stood for an year-on-year increase of 18.3 percent. The second derivative of the growth rate is positive with respect to the year before. On an annualized month-on-month basis M2 grew by 22.4 percentage points after being seasonally adjusted. M1 increased by 11.3 percent where growth figures also decelerated. The money multiplier is mainly determined by the withdrawal rate, the excessive and the required reserve ratio.

593 See [Carrasco, 2003], p.5. Monetary growth has exceeded GDP growth by ten percent in the first two quarters of 2003; see press statement of the PBC, “Financial Industry Performance Witnessed Market Improvement in the First Half of 2003”, www.pbc.gov.cn, p.1. Open-market operations, either as outright purchases or termed repurchase agreements, are used by the Chinese Central Bank since April 1996. Starting with 14 commercial banks including the big four the operations have been significantly extended and include urban cooperative banks. Evidently, there has been only little impact on the lending behaviour of the banks involved due to a too small volume of existing government bonds, the regulated interest rate structure, and the lack of institutions channelling the money to lending operations. Since high inflation and low interest rates may induce massive withdrawals of savings and may reduce the stability of the banking sector and economic growth figures interest rates have partly been indexed to inflation in the mid 1990ies. Loan rates are also directly set via reference interest rates with bands of up to 30 percent depending on the economic sectors. In the same time deposit interest rates for private savings were lower than the deposit interest rates for banks at the Central Bank which set the incentive to increase profit by just depositing the savings. Financial disintermediation is the obvious consequence of this interest rate distortion. Especially in the late 1990ies the profitability suffered due to an indexation of the interest rates for deposits with maturities of three, five and eight years which often exceeded the credit interest rates for the same maturities by far.

interest rate and exchange rate responses[594]. While strong monetary growth is usually negative for the medium inflation outlook, current inflationary or deflationary tendencies are hard to extract from the different price signals in China. The consumer price index is stable at around 1.6 percent for 2005 but is partly distorted[595]. For example food prices still constitute around 60 percent and have remained relatively stable while food in general has become less important in the average Chinese consumption pattern. Contrary to this, e.g. prices for medicals are not covered in the CPI but have increased strongly. Hence, the stagnation of the CPI can be misleading and its impact on deposits and bank loan books unclear.

However, the deposit interest rate cap currently has a limited influence on deposits which together with cash stand for around 61 percent of total wealth in China[596]. Deposits in financial institutions have increased by a significant 18.2 percent year-on-year - by November 2005 to 29.85 trillion RMB[597]. Household deposits in RMB stood at 13.85 trillion RMB - an increase of almost 18 percent year-on-year[598]. Corporate deposits increased by 15.3 percent to 9.39 trillion RMB. The high aggregated savings quota of around 40 percent significantly supports the liquidity position of banks. Growth rates are, however, slowing down and especially among the young and urban population the saving rate seems to decline[599].

Even though the correlation between deposits and credit is distorted due to the interest rate regime the credit volume has increased strongly over the last years while still large amounts of funds are unused. Between June 2002 and June 2003 credit volume increased by 22.9 percent to a total of 15.9 trillion RMB[600]. Credit growth in 2004 and 2005 was below the 15 percent target and hence also below the increase of 21 percent in 2003[601]. Loans outstanding in RMB and foreign currencies reached 20.57 trillion RMB representing an increase of 13.8 percent year-on-year and a loan-to-GDP ratio of around 113 percent[602]. Infrastructure projects

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594 In China more lending is often correlated with higher deposits especially in the corporate sector. Lower lending hence implies a slowdown of M2 growth so that the PBoC lowered interest rates in 2005 to increase liquidity in the money market.

595 CPI yoy eop data form Deutsche Bank Research.

596 According to www.scmp.com, 5. September 2005, “Deutsche Bank rides wealth tide”.

597 Data on deposits and loans of PBoC if not stated otherwise.

598 The proportion of households saving in foreign currencies is decreasing. For example US Dollar deposits were only chosen by 3.4 percent of households, down 0.7 percentage points.

599 On the positive side this consumption contributed to GDP growth by one to two percentage points; see [Orr, 2004A], p.106.

600 Press statement of the PBC, “Financial Industry Performance Witnessed Market Improvement in the First Half of 2003”, www.pbc.gov.cn, p.1

601 Liu Mingkang at the 17th US-China Joint Economic Committee, 16. October 2005.

602 GDP is at around 2,228 billion US Dollars; see Deutsche Bank Research. RMB loans increased by more than 14 percent to 19.34 trillion RMB with a significant increase in the growth rate at the end of

and capacity expansion are the most common recipients of bank lending - often supported by local governments. Interest rates for consumer loans have raised and so the number of households without liabilities has increased by more than two percent to 74.9 percent[603]. However, the interest rate spreads between household loans and loans to enterprises, e.g. working capital, have already narrowed down[604]. Credit business with private customers gains importance. Mortgages, credit cards and car loans to private clients account for more than ten percent of the loan books of banks - standing for around two trillion RMB. Around 90 percent of this portfolio consists of mortgages which for example grew by 115 percent between 1998 and 2004. In 2004 they rose by an above average 36 percent[605]. Since mortgages carry a low risk-weight of only 50 percent banks and a current default rate of only three percent capital adequacy ratios can be secured despite high credit volumes. Concerning the loan structure in bank portfolio the proportion of medium- and long-term loans - mostly for investment - has increased further. The proportion of medium and long-term loans has also risen from 24 percent in 2002 to 40 percent in 2004. However, consumer credit grew less than in the year before due to a lower increase of medium and long-term home loans and the short-term working-capital-to-GDP ratio of around 70 percent is one of the highest in the world[606].

### 2.2.4. Institutional Analysis of Formal Market-Stabilizing Institutions

In many cases formal market-stabilizing institutions are introduced to align interests and to enhance trust between market participants. Especially under shifting institutional frameworks they can channel and facilitate economic interaction. For instance, the ongoing evolution of capital markets in China illustrates the various impacts of market-stabilizing institutions on macroprudential indicators. During the development of capital markets a multitude of common and partly conflicting interests of market players in China has evolved due to a complex set of reforms. Investors, especially households with their savings volume of around twelve trillion RMB are desperately waiting for investment alternatives with higher yields[607]. State-owned banks and regulators fear a destabilizing shift of assets out of deposits into other capital market products even though the ambitions to expand bank business scopes and their

2005. New RMB loans in November 2005 were at 225.1 billion RMB up 19.4 percent on a month-on-month basis and after having been seasonally adjusted.

603 See PBoC 2005Q4 Survey on Urban Household Savings.

604 This tendency has been observed for some time; compare [Lou, 2001], p.43.

605 See for example The Economist, “Consumer Lending in China: Safe as houses?”, 23. April 2005, p.73.

606 In Q1 2005 according to the PBoC.

607 In addition to the approximately eight trillion RMB in corporate savings; see China Daily, 8. November 2005, p.11, “Stock market embraces reform“ by Chen Hua.

customer base exist. The resulting support for government commercialization efforts in state-owned banks has already played an important role - especially through plans to go public. Also the looming pension crisis fosters government efforts to create functioning capital markets to provide productive investment opportunities[608]. Additionally, a broad circle of market participants may have the common interest to obtain better data through capital markets, e.g. about the quality of companies with which they interact[609]. Since many floated companies are state- or family-controlled, information disclosure in this field could be promoted through capital market development.

Despite significant pitfalls the current Chinese framework for stock, bond and money markets has significantly contributed to stabilize the banking sector. And while it still creates a range of informational and incentive problems for economic interaction capital markets induced e.g. catalytic institutional investors to promoted market discipline as well as better governance and information disclosure. Issuer responsibilities have been formalized which increased accountability so that they e.g. have an incentive to use revenues from going public in accordance with the prospectus[610]. In the future this can help to stabilize the corporate and the banking sector due to an alignment of interest, enhanced transparency and depositor protection. Currently, however, the domination of Chinese capital markets by an officially selected and limited - meanwhile growing - number of investors such as securities companies has lead to insider incidents and misuse of market access[611]. Lacking transparency, low trust levels and perceived government discretion are further obstacles to apply for and obtain the permission to issue shares even though today at least the reasons for acceptance or denial have to be published[612]. The already low trust levels of investors have been initially further reduced by the announcement of the securities regulator CSRC in May 2005 to float the state-owned legal shares. While capital markets have set the incentive for the government to aim at a more efficient property rights structure through privatization the privatization the current legal framework has not sufficiently protected the existing property rights of minority shareholders which are only partly defined in China today. Consequently, in one out of four pilot

608 The new compulsory contribution-based pension system of 1997 invests in a mix of government bonds and bank deposits. An essential precondition for this system are a solid banking system and functioning capital markets, especially markets for long-term financial assets such as treasury bonds; compare [Lardy, 1998], p.140.

609 This includes the regulatory authorities; compare [Zhou, 2005], p.5.

610 [Vortmüller, 2001], p.234

611 Informal institutional investors account for more than 50 percent of the market capitalization. On this and a detailed investor analysis for the capital markets see [Green, 2003], p.70ff.

companies the detailed plan was rejected because minority shareholders felt inadequately compensated for expected devaluations of their property rights[613]. This depreciation was added to by inadequate conduct of legal shareholders - including embezzlement of assets and fraud in state-controlled companies - induced and facilitated by the current institutional framework[614]. Finally, the interdependence of political, social and economic goals of the floatation scheme exceeded the CSRC's competences and illustrated the distorted setting in the stock markets and subjects investors to discretion or abuse by insiders[615]. However, resulting protests have enhanced awareness for minority shareholder rights and the awareness among these investors of their own influence, e.g. for the possibility to voice demands against government majority shareholders. Hence, the floatation scheme has ignited a fierce debate about property rights including the advantages of an easier transfer via stock markets to the negative impact on existing property rights and its compensation[616]. Currently, however, the general public remains reluctant to invest in the stock market due to endogenous risks such as the legal person share overhang, transparency and governance on the one side, and exogenous risks like potential exchange rate shifts, increasing trade frictions and the booming property market on the other[617]. The ongoing fragmentation of the stock markets and ownership restrictions also sets negative incentives for international investors since it clearly hampers investment and foreign management control in Chinese companies. Investment levels and the potential transfer of knowledge are thus artificially reduced.

Similar incentive and informational problems in economic interaction can be found in the Chinese bond[618]markets. The current approval procedures for bond issuances lack

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612 [Vortmüller, 2001], p.234. Recent complicated issuances including warrants as in the case of Yangtze Electric Power additionally weigh on investor confidence since transparency is still lacking.

613 Industry analysts have estimated that the restructuring of the share structures may take at least one year in the first phase; see for example The Economist, 11. August 2005, "China's stockmarket, Hangover cure?". The regulations include that the applying entity has to decide which proportion of government shares is going to be floated. The Financial regulators have given rights to supervise the detailed floatation plans to the two mainland stock exchanges. Companies directly owned by the government have to gain permission for their plans directly from the State Assets Supervision and Administration Commission while other state-owned companies have to gain permission at the provincial agencies, see for example Shanghai Daily, 10./11. September 2005, p.1, "regulations on sales of state shares issued".

614 It has been criticized in the media that not only well-run companies are prepared for floatation.

615 Five ministries are involved in this process.

616 This includes distributional aspects since basically the tax payer will have to compensate individual minority shareholders. In case of e.g. Baosteel alone this would translate into an amount of 3 RMB per Chinese citizen.

617 See www.scmp.com, 13. June 2005, „A-share markets are reeling from crisis of confidence" by Mark O'Neill.

618 The markets for government bonds (treasuries or securities), corporate bonds and financial bonds.

transparency and set negative incentives for creditworthy candidates to apply for issuances while well-connected banks and companies gain permission and market access. The limited market access to the bond market for issuers additionally reduces competition and excludes some - especially small - actors from the market. Deprived of refinancing opportunities in the fragmented bond markets some of these potential issuers are pushed into the informal credit market. Incoherencies and opaque limitations for bond markets have thus contributed to a fragmentation within China. For example the interbank bond market is under the supervision of the People's Bank while the exchange traded bond market is supervised by the CSRC under different rules. Even though arbitrage has decreased this setting induces market participants to capitalize on different regulatory frameworks and to play the agencies off against each other to the detriment of financial stability. Limited market access and fragmentation also hampers the development of the treasury market. Here, the differing markets - i.e. the interbank market, the spot market at the Shanghai Stock exchange and the selling of certificates to individuals through banks - with different approaches limit the incentive to transform risks through the treasuries segment[619]. Here, the institutional framework does not prevent the government to issue mainly long-term maturities for project refinancing instead of supporting the establishment of a yield curve of mixed maturities. As a result bond yields are not market-driven, risk-pricing is inadequate[620] and monetary policy making[621] is hampered. Additionally, the treasury yield curve as a commonly used indication for market pricing for other fixed income products is missing which creates informational problems among market participants. Pricing mechanisms are additionally dysfunctional and distorted because bonds still usually have to be held until maturity which reduces incentives to invest and creates illiquid markets[622]. Primary and secondary fixed income markets are thus generally underdeveloped which limits alternative investment opportunities for investors[623]. Even the rapidly developing interbank markets with their liberalized interest rates reflect distortions in the incentive

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619 The same applies to the limited utilization of securitizations, e.g. of mortgages; see for example The Economist, “Consumer Lending in China: Safe as houses?”, 23. April 2005, p.73.

620 See www.scmp.com, 17. June 2005, “Architects of China's bond market face a learning curve” by Tom Holland.

621 Usually, auctions of short- and mid-term maturities reveal the demand for bonds and the central bank then can plot a yield curve and set an adequate interest rate; see [Green, 2003], p.37f.

622 [Green, 2003], p.40

623 However, despite high foreign exchange reserves the Chinese government has issued foreign currency bonds to develop the corporate bonds market in foreign currencies and to provide reference points for their pricing. In Euro and US Dollars in October 2003 and October 2004 with maturities between five and ten years and volumes of accumulated 1.5 billion Euro and 1.5 billion US Dollar; see FAZ, “China Anleihe überrascht”, 28. August 2003, p.19 and FAZ, “China will Euro Anleihe begeben”, 13. October 2004, p.21.

scheme[624]. Here, the high proportion of repurchase contracts - so-called repos - traded relative to normal spot trading indicate that market participants use the market as a money market for refinancing periods of less than a year. While trading liquidity is a core element of interbank markets the high proportion reflects that banks are induced to use the market primarily to circumvent CBRC refinancing regulation and only partly to transform risks and maturities. This increases the risk of contagion through counterparty risks while the high volumes facilitate the possibility to channel bank funds to the equity markets which would expose bank assets to higher risks. As a result more informational problems arise. Signals in the capital markets are still distorted and devalued due to regulatory efforts to control market access and conduct so that mechanisms like screening by investors are hampered. The impaired possibilities to collect and signal information have lead to many pooling equilibria in the capital markets. Hence, this environment supports rogue players who can be identified less easily so that investors are partly deterred and markets have developed modestly. Additional incentive problems result from the distortions of the price signals due to the officially administered interest rate. However, despite these distortions evoked by the current framework for the Chinese capital markets their general impact is positive. For example new instruments like commercial papers issued by banks or companies experience rapid growth in volume and have increased the competition for funds and have gained market volume compared to bank credit. The possibility to issue subordinated debt has positively contributed to the development of capital adequacy ratios. Even the prospect to participate in capital markets have induced banks to improve asset quality and management soundness to attract investors and facilitated admission to the bond markets. This has reduced potential fiscal burdens. And despite higher risks of contagion due to government discretion and regulatory shortcomings capital markets exert perpetual and positive liberalization pressure on the interest and exchange rate regime and on property rights structures. By offering alternative investment opportunities growth potential increases and the risks of a lending boom and credit concentration in markets like property is at least slightly reduced.

Even more than in capital markets non-economic policy issues determine common and conflicting interest in China's fiscal policy. Bank lending has been considered to be an extra-budgetary source of capital for local and central social spending in an environment of decreasing tax revenues, restricted government refinancing at the central bank and continued

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624 In addition to the traditionally strong OTC market. In 1996 the OTC interbank market was unified by the PBoC in the Nationwide Unified Interbank Trading Network System. The OTC-bond market is the largest bond market in which banks, credit cooperatives, insurance companies and some securities and fund companies participate. Large banks act as market-makers in a quotation-based system. Here, the government issued around 390 billion RMB in treasuries alone in 2000; see [Green, 2003], p.39. The OTC-market consists of two segments open to institutional and private investors.

fiscal reforms. The existing stock of non-performing bank assets is mainly a result of this misperception. This history has induced moral hazard problems in the banking sector since recapitalization requests - also on the local level - have gained certain legitimacy with a public which partly expects banks to play a social role in society. Further, conflicting interests between central, provincial, county and municipal authorities have become evident in the course of recent fiscal reforms. Those have reduced the importance of local authorities in tax collection[625] which reduced the incentive and possibility for local interference and fraud[626]. However, inter-agency conflicts stalled parts of the fiscal reforms and strong regional disparities have induced governments to provide more funds to rural areas and to discuss e.g. the abolition of the agricultural tax[627]. While this reduces the overall fiscal capacity some financial institutions like rural credit cooperatives have a significant interest that more financial resources are attributed to the rural areas - possibly through their books. Banks and other financial institutions which operate less geographically restricted or in urban and coastal areas may find their interests underrepresented in this policy approach - possibly leading to a stronger fragmentation of the Chinese banking sector and further financial disintegration.

Despite the ongoing bank commercialization informational and incentive problems in this still volatile and politically sensitive setting are inevitable. Concerning the tax systems two major distortions still impact negatively on macroprudential indicators. Those are the insufficient tax deductibility of loan-loss provisions and the high and differentiated rates of business and income taxes for banks. Under the current system general provisioning is tax deductible to a small extent while specific provisions are not tax deductible. Unfortunately, specific provisions covering specific risks are core to prevent capital depletion and are thus a major driver for capital adequacy ratios. Hence, the incentive for prudent provisioning in banks is

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625 In some pilot projects e.g. in Hubei, the number of government departments was reduced to three from several dozens. Today only economic; social; and party and government affairs are covered.

626 For example in Guizhou province the county governments now report directly to the provincial government which reduced the importance of the municipal level. The financial relations between local, provincial and central governments have still not yet clearly emerged. There are fixed central government, fixed local government and shared tax revenues. The business tax on bank headquarters is a fixed central government tax. Taxes that are fully assigned to local governments are e.g. the income tax on locally-owned and local collectively-owned companies. The rates, however, are determined by the central government. The industrial and commercial tax is a shared tax as is the tax on foreign enterprises and joint-ventures. The sharing quota is a minimum basis plus a proportion of the incremental revenues above this minimum level is specifically negotiated with the central government. Tax collection has improved from twelve to 18 percent of GDP between 1994 and 2004 but fiscal sustainability remains questionable - also due to currently low interest rate levels; see The Economist, "Behind the mask, A survey of business in China", 20. March 2004, p.17.

627 By 2006; for more details also on contributions for programs fighting rural poverty see www.scmp.com, 4. July 2005, "shake-up of grass-roots government in pipeline" by Cary Huang.

reduced. The tax-deductibility of loan-loss provisions was heavily discussed between the CBRC and the Ministry of Finance but the expected negative fiscal impact has significantly slowed down the inter-agency negotiation process[628]. Traditionally, taxation was a surrogate for dividends in state-owned banks and the Ministry of Finance has often rejected reforms due to the high relevance of taxes on the financial sector for the budget[629]. Concerning the second mentioned distortion, both the high income tax and the business tax on gross income are unnecessarily reducing bank profitability[630]. Despite some recent changes the situation for less profitable banks is still complicated since the gross income is taken as a basis for the business tax. Additionally, taxable income is easily overstated e.g. by the above mentioned inclusion of loan-loss provisions in the gross income[631]. As a result business taxes can be disproportionately high which slows down bank efforts for non-performing loan work-outs so that the impact of the tax system on macroprudential indicators is rather negative so far.

Concerning the Chinese budget, spending considerations have also continuously contributed to informational and incentive problems in the Chinese banking sector. Next to the distortive effect of recapitalizations some legal provisions imply risks for the banking sector in times of budgetary distress. Especially article 34 of the Commercial Bank Law implies a potential problem for commercial banking, asset quality, and governance in China. It states that commercial banks should conduct their lending business in accordance with the national economic and social development and specifically under the guidance of the state industrial policies. Taken alone this article may still become a source of instability since government agencies may be induced to recur to this provision in case of budgetary distress due to economic, social or political change in China. These provisions foster insecurity among market participants especially in crisis situations where bank stability is already endangered. Hence, the current institutional setting for fiscal policy has a mixed impact on macroprudential indicators. While recapitalizations induce moral hazard issues for bank management they grant the opportunity to get rid of unsustainable amounts of non-performing debt amassed by social spending and have improved capital adequacy. The liquidity position of banks is thus positively affected. However, the limited possibility to provision for loan losses in the short term increases profitability but induces sub-optimal levels of provisions

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628 The CBRC supports the abolition of the business tax for banks to enhance their financial stability.

629 Compare [Tenev, 2002], p.64f. In the mid 1990ies around 15 percent of the fiscal revenue came from the state banks.

630 Only a minority of countries have such a business tax. While the differentiation between foreign and domestic banks in taxation attracts foreign bank entry it further reduces domestic bank's competitiveness.

631 Further, banks have been required to e.g. accrue interest on non-serviced loans for three years which generated phantom income.

which negatively affects capital adequacy. It may even induce banks to increase their lending volume to reduce the proportion of existing non-performing assets.

These aspects are intertwined with the conflicting interests resulting from the Chinese interest rate regime which is still to a large degree administered by the People's Bank. In fact, the central bank via its interest rate policy has to secure GDP growth figures of around seven to nine percent while controlling for inflation. These growth figures are assumed to be necessary to foster economic restructuring and to create jobs for millions of people who newly enter the Chinese job market every year[632]. The administratively decreed high profit margin is in the common interest of Chinese market participants but regulation hampers the business conduct of foreign market entrants[633]. Consequently, while being beneficial in certain parts the still publicly administered interest rate regime has - though informational and incentive problems - contributed to financial disintegration in China. As a most obvious consequence competition and its positive incentives have suffered since banks cannot set interest rates in accordance with their business strategies. For example foreign banks cannot increase interest rates on RMB deposits to attract those and are thus severely constrained in their credit business. It is obvious that the People's Bank fears an adverse selection among Chinese bank customers when foreign banks would attract the top clientele - so that mostly the less profitable and riskier customers would stay with the domestic banks. Hence, while part of the current regime can be interpreted as a protective measure for domestic banks also those have to suffer from slow interest rate adjustments which are additionally influenced by political and social aspects. Especially city commercial banks have to borrow liquidity in the interbank market while large and mostly state-owned banks have far better access to the cheaper discount and rediscount facilities[634] of the People's Bank which has added to financial dualism in China.

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632 [Moreno, 2002], p.1 estimates around ten million people.

633 Credit margins are approximately twice as high as in developed banking sectors - around four percent. Since credit interest rates were reduced more frequently than deposit interest rates bank profitability suffered in the past. Usually deposit interest rates were at around 1.71 percent with inflation at around one percent; see [Schröder, 2003], p.14. For example in the mid 1990ies at an inflation rate of around 17 percent household savings generated an interest rate of 3.15 percent and credit interest rates were at around eleven percent for one-year working capital loans. Regionally differing inflation rates and current inflation pressures may reduce the interest revenues. Through trust and investment companies - which are not subject to interest rate regulation - banks can partly circumvent interest rate regulation; see [Wei, 2000], p.108ff. The overall profits in the Chinese banking sector are estimated to increase annually by ten percent over the next ten years. Profits of the state commercial banks have declined over the ten years before 2001. Estimates for 1999 assume profit ratios between negative values and 0.33 percent; see [Siackhachanh, 2002], p.6. For a discussion of interest rate reform steps see [Arayama, 2000], p.159.

634 Under the discount contingents specific economic sectors can issue a certain volume of commercial papers which banks can cash-in at the central bank. Due to high transaction costs many banks prefer to buy six-month central bank bills with negative yields than to roll-over their funds every week in the interbank bill market. Six-month central bank bills yield lower than the interests banks have to pay on

The high interest rates on excess reserves have also not induced a higher sensitivity of banks for market-based monetary policy instruments since price signals are less urgently extracted due to the existence of the reserve facility investment alternative which offers relatively secure and high yields[635]. Under the current system high liquidity levels imply that the central bank can only marginally influence short-term interest rates so that interest rate adjustments are slow[636]. On the deposit side the interest rate cap is binding so that incentives to deposit are reduced. On the lending side strong competition and lacking pricing experience has prevented significant increases in bank interest rates. This implies that deposits and lending are partly decoupled and that even interbank interest rate increases have only little immediate effect on lending. Only smaller city commercial banks are then affected in their refinancing. Since liquidity and banks are confined to the Mainland lending has been further decoupled from interest rate developments. Since interest rate correctives do not work properly and since attractive investment alternatives are rare banks have incentives to grant more loans to potentially unproductive projects. Hence, government agencies have a continued justification for further interest rate administration to control capital misallocation[637]. However, this price-regulation for the banking sector has to be performed in a growingly complex environment in which parts like the interbank market are market-driven and other parts are state-administered. Incoherent policies are the obvious consequence. The central bank's monetary policy decisions are additionally complicated by differing interpretations of the official price stability goal. While some analysts assume that monetary stability would be the higher ranking goal others claim that economic development is equally important with the latter one covering more socio-political aspects[638]. Hence, market players act in a highly ambiguous environment

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deposits. However, investment alternatives are lacking which indicates that the entire system is not commercial enough.

635 Interest rate elasticity is still low in China. Liberalization may thus not immediately yield in more effective monetary policy tools. On the correlation between interest rates and savings as well as loans and elasticity observations see [Wei, 2000], p.116ff. In the meantime the People's Bank has reduced these interest rates to reduce misallocations and to enhance the impact of its policies. For example when the PBoC lowered the interest rates in March 2005 on excess reserves by 63 basis points the government securities yield curve for the interbank market dropped by 10 basis points across all maturities within a week due to higher demand. The PBoC sees a correlation here and has indicated that its monetary policy would be more effective after the reduction of excess reserve interest rates, see for example PBoC China Monetary Policy Report, Q1, 2005, p.42.

636 Additionally, the lack of commercial lending experience in rural credit cooperatives leads slows interest rate adjustments. This hampers risk-pricing in rural lending with its statistically higher default ratios.

637 With the artificially low interest rates the PBC has increasing problems to signal its policies; e.g. against deflationary pressures in a cool-down; see for example [Carrasco, 2003], p.6ff. For more information on the old credit plan see e.g. [Zhang, 1997], p.19.

638 Some authors claim that article 3 implies capital controls; see [Carrasco, 2003], p.3. Problems with the Central Bank Law were already evident when the National People's Congress passed the law in 1995 with only two-thirds of the delegates´ votes - a novelty in Chinese legislation. The link between

with partly contradicting signals where interest rates do not necessarily reflect the scarcity of capital. Consequently, financial intermediation suffers from interest rate regulation. This is illustrated by the significant regional informal credit markets which serve small and medium mostly private companies and households with adequately priced credit facilities[639]. These distortions of the deposit-credit cycle have largely negative repercussions for lending volumes and asset quality. A majority of bank loans are still collateralized which makes bank loan books susceptible to shifts in asset prices and subjects them to profitability risks and problems with the capital ratios[640]. The development of lending volumes far above central bank targets which is mainly due to high liquidity levels and distorted interest rates. To tackle resulting problems of capital misallocation the People's Bank through its window guidance policies has defined bottleneck industries[641] and overheating sectors with excessive fixed asset investment, e.g. real estate, iron and steel. While this approach illustrates a mere cure of symptoms the growing unproductive investments and profitless growth have negative repercussions on bank

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monetary stability and economic growth was disputed hotly as was the relation between the PBoC and the State Council. Conflicts of interest between local governments and the central government contributed further to the discussion. The monetary focus of the central bank was criticized from the Chinese economy who had suffered through a period of restrictive monetary policies since the beginning of the 1990ies. However, the government was concerned that multiple tasks could hamper the effective control of monetary aggregates and the price level. Hence, a proposal that the central bank should mainly support state industrial and development policies was not adopted by the National People's Congress. On the role of the PBoC see [Wan, 1999], p.203.

639 In some regions like Wenzhou Zhejiang they are quite organized and are rooted in traditional clan and brotherhood structures. They serve small and medium mostly private companies and households and are not supervised and lack consumer protection. Analysts assume that up to two-thirds of the credit needs of Chinese economy is met by the informal credit market and institutions that are not officially registered as financial institutions. Often, these companies who calculate their interest rates hourly are tolerated by local governments despite their barely illegal interest rate policies. Interest rates are usually around 15 to 20 percent - three or four times higher as in the official sector; see Financial Times Deutschland Online, 9. November 2005, “Agenda: Chinas Banken im Schattenreich” and The Economist, 29. October 2004, “Ah, there's the brake pedal”.

640 While the price-sensitive Chinese depositors complain about low deposit rates household savings have increased to 39.5 percent; data see PBoC 2005Q4 Survey on Urban Household Savings and PBoC “Financial Service Industry Performance Remained Stable and Money Supply Growth Accelerated” of December 2005. Despite real interest rates around zero percent or even negative, the current regime does not induce massive deposit shifts to other banks. The deposit growth potential is estimated to be around five to ten percent in the coming years. Saving motives are child education, property purchases, pensions as well as medical and unemployment risks. The underlying motive of caution may explain a conservative bias for deposits so that deposit interest rate elasticity is rather low. Almost 200-400 million people are estimated to be unemployed or underemployed in the PR China so that the country seems far away from internal balance, see e.g. The Economist, 25. June 2005, p.88, “Precisely wrong”. And while in 2000 ten percent of the population was older than 60 years in 2020 this proportion will be at 17 percent an in 2050 at 29 percent; see FAZ, “Chinas Rentenkrise”, 11. May 2005, p.11.

641 For example coal, power, oil, and transportation.

asset quality and profitability[642]. Especially the supply-driven property market[643] and the large proportion of bank financing in property deals imply high risks for banks[644] since asset prices influence bank asset quality twofold - via the corporate side including property developers and through the private client side[645]. Considering overheating tendencies in key property markets[646] and problems with consumer credit registries[647] the interest rate regime has already contributed to future non-performing loan problems. The growth in medium and long-term lending is another consequence of the distorted incentives set out by the interest rate regime. Refinanced by short-term deposits these mismatches add maturity risks to bank and bank customer portfolios and may prove to be particularly problematic when asset prices fall, e.g.

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642 See The Economist, “China's patient crusader”, 14. May 2005, p.66. For example in the first eleven months of 2003 financial institutions had already granted 40 percent more credit than in 2002, concentrated in sectors such as automobile, cement, steel, aluminium and property. The PBoC reacted in 2003 by increasing the reserve ratio from one to seven percent in September 2003 which took around 150 billion RMB out of the market; see www.thebanker.com, 3. March 2004, p.96, “Preparing for competition“.

643 However, individual housing loans are rather low in international comparison with around 11.7 percent of GDP while standing at 39 percent in the European Union and 60 percent in the United Kingdom. In 2004 the real estate market e.g. in Shanghai increased 27.5 percent in house prices. However, only 17 percent of houses were bought for rent or sale. About 70 percent of the capital of property developers is bank credit. In Beijing this ratio was at 81 between 2000 and 2003; see China Daily, 16. August 2005, p.9, „Hike in real estate loans continue“ by Chen Hua.

644 The CBRC has tried to reduce these incentives by introducing Guidelines on Risk Management of Commercial Bank's Real Estate Loans. Ownership rights were constrained by abolishing the possibility to sell property before it has been constructed. Also the necessary amount of equity to buy an apartment has been increased to 30 percent from 20 percent. In March 2005 the government curbed subsidies on mortgage loans, increased upfront payments and introduced a capital gains tax of 5.5 percent on property in Shanghai. Measures include a 30 to 60 percent tax on villas sold less than three years after purchase and an increase in housing loan interest rates and a deed tax of 3 percent on luxury apartments, up from 1.5 percent. In Shanghai the volume of villas sold have decreased by 60 percent in the six months after and prices have dropped from 14,800 to 14,00 RMB per square meter. However, speculative buying - including foreigners - accounts for around 75 percent of the transactions. See Shanghai Daily, 17./18. September 2005, p.9, “Mortgage-lead market falls”, Shanghai Daily, 17./18. September 2005, p.9, “Villa demand plummets in short period”, and The Economist, “Property in China: Sky-high Shanghai”, 26. March 2005, p.71. On monetary policy and asset price bubbles see for example [Filardo, 2004].

645 For example by bogus property loans based on fake financial data or data omission. The regional or still small nationwide credit data base so far cannot prevent this abuse. Reits are not expected in the floundering mainland Chinese markets in the near future; see www.scmp.com, 26. September 2005, “Higher rates pose risks for reits” by Foster Wong.

646 It seems that the leverage for increases of non-performing mortgages on the profits of Chinese banks is quite high between seven and 11.5 percent for a sample of the Joint-Stock Banks. This includes the China Minsheng Bank, the China Merchants Bank and the Shanghai Pudong Development Bank; see The Economist, “Consumer lending in China: Safe as houses?”, 23. April 2005, p.73.

647 Only tested in a pilot program in seven cities since end of 2004.

due to rising interest rates[648]. Consequently, the current interest rate regime has a negative impact on asset quality and management soundness. It distorts credit decisions and thus increases the risk of contagion and deters foreign investors.

This significant government presence in economic interaction is also prevailing in the exchange rate regime. With the "managed floating" and the control of the capital account the Chinese government aims at a vast array of goals like trade and export facilitation, exchange rate stability, and sound banking sector development[649]. While market participants have a common interest in stable economic development bank customers, banks and government agencies have also conflicting interests concerning the further evolution of the exchange rate regime. Preferences of exporters and importers depend on expectations about possible exchange rate shifts under alternative settings but since the Yuan has appreciated mostly within its allowed band exporters tend to support the current regime. Banks may expect new business opportunities, e.g. forex derivatives, but will also be exposed to new foreign exchange risks, e.g. in their assets. Foreign banks certainly strive for capital account liberalization to secure free refinancing and facilitated market access[650] while government agencies such as the State Administration for Foreign Exchange would lose their direct influence on exchange rate developments. Most importantly considering the liquidity situation in China today the People's Bank would gain degrees of freedom for a more effective monetary policy.

Under the current exchange rate regime the already significant informational and incentive problems have aggravated. Transparency in exchange rate decisions of the People's Bank is lacking completely despite efforts to stress the market-based character of the new currency basket. The central bank has thus retained the discretion to intervene at convenience without publicity and with no need to disclose further background information. The assumed undervaluation of the Yuan has fostered large inflows of foreign direct investment and more speculative portfolio investment which have increased inflationary pressure in China. This has induced overinvestment and strongly rising asset prices which can turn out to be problematic for bank asset quality in the medium term[651]. The current exchange rate regime has not set

648 On the positive side non-performing loan ratios with short-term working capital loans are around 78.9 percent and for medium and long-term loans only at 21.2 percent. In this context, capital adequacy ratios gain importance. Since mortgages carry a low risk-weight of only 50 percent banks and have a current default rate of only around three percent the bias for collateralized credit can be understood.

649 Managed exchange rates and capital account liberalization have proven to be problematic in the Asian crisis, especially when the financial sector is weak.

650 Especially the SAFE quota system for foreign banks has been criticised.

651 Since many investors are long-term, e.g. overseas Chinese the risks may be mitigated.

incentives for market participants to develop a sufficient risk-awareness so that the number of trades in forwards and swaps has been rather low since their introduction in August 2005[652]. Regulatory restrictions[653] and inexperience of traders[654] add to the fact that markets are not yet sufficiently deep and liquid and banks and companies cannot adequately hedge foreign exchange risks[655]. From a macroeconomic perspective the current regime facilitates a direct impact of external shocks on the Chinese price and wage level without being buffered by exchange rate adjustments[656]. Contrary to these repercussions of the exchange rate system the current appreciation - at an annualized rate of around four percent - does only have a limited impact on bank profitability since only a small proportion of revenues is generated in foreign currencies[657].

The recent adjustments in the exchange rate regime and the remaining - even though porous - capital controls promote slow shifts in the exchange rate and set disincentives for speculators which supports financial stability in China[658]. The effect of capital controls in general is, however, already limited. Banks with overseas branches are less constrained and can move money across the border in intra-bank operations. Foreign bank regulation and the strict implementation of supervisory rules is partly seen as a signal to prevent foreign banks from circumventing capital controls. Contrary to this, households and firms are more bound even though the controls create incentives to bypass controls by early payment of imports, invoicing, and late payment of exports[659]. While porous capital controls without exchange rate

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652 The Economist, 11. August 2005, “The Yuan, Chinese Puzzles”

653 For example the SAFE still determines the maximum amount of trading between domestic and foreign currencies for non-financial enterprises and non-bank financial institutions depending on the amount of forex surrender, capital or operating capital; see Notice of the PBoC on Accelerating the Development of the Foreign Exchange Market, PBoC Document No. 202 [2005].

654 However, 18 foreign and six local banks have gained permission to trade onshore forwards in RMB. In the first month only 12 deals were registered; see www.scmp.com, 28. September 2005, “More banks cleared for yuan trade”.

655 Since forex swaps can trigger foreign indebtedness as in Thailand during the Asian crisis the People's Bank has still strictly regulated these transactions so that Chinese borrowers can only partly capitalize on these new instruments; see www.scmp.com, 22. September 2005, “Latest currency relaxation another advance…in theory” by Louis Beckerling.

656 See among others [Carrasco, 2003], p.10f.

657 See www.scmp.com, 25. July 2005, “Mainland banks seen safe from yuan fallout”, by BEI Hu. See also The Economist, 1. April 2006, “Gently towards the heavens”, p.67.

658 Most of this speculative money can be found in the RMB money market. Japan for instance has opened its capital account gradually from long-term investment to short-term investment, from direct to indirect investment and from portfolio investment to bank transactions. This has negative repercussions on the financial market and product development and may trigger foreign criticism.

659 Additionally, credit cards and institutions such as Western Union are also small leaks in capital controls due to an increasing lack of control over economic activities.

liberalizations imply risks[660] the exchange rate regime as such remains highly problematic for the banking sector. For example domestic banks have increasing problems to refinance foreign currency loans via deposits and cannot refinance themselves easily via international capital markets due to Chinese regulation. In order to induce foreign exchange deposits the People's Bank has increased interest rates for small foreign exchange deposits[661] - an example that unnecessary and costly second-best solutions still prevail in the banking sector. With the regulated interest rates on deposits interest rate spreads between Chinese and international capital markets are distorted so that resource allocation is less efficient[662]. With respect to inflation the combined effects of the exchange rate mechanism and the interest rate regime have so far generated a mixed impact on macroprudential indicators. Capital influx and low interest rates have pushed economic growth and inflationary pressure, especially through asset prices. Strong investment in specific sectors may, however, create limited deflationary tendencies. Additionally, while both inflation and deflation can reduce asset quality, liquidity or profitability bank portfolios can also suffer from inflation via the treasury bonds held by banks. Since China has a traditionally low tolerance for inflation - as tested e.g. in the early 1990ies - interest rate increases in case of accelerating inflation are possible and may be unexpected for some market participants. Hence, the current interest and exchange rate regime negatively affects China's monetary policy and especially the liquidity situation which fosters excessive lending, foreign speculative portfolio investment and exuberant asset price developments.

## 2.3. Informal Market-Regulating Institutions

### 2.3.1. Guanxi - Networks and Politicization

The system of guanxi - the system of personal connections and ranking in China - is strongly related to the structure of the Chinese state and the Chinese Communist Party. In the Chinese single-party system the Standing Committee of the Politburo of the Chinese Communist Party

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660 On this aspect see for example [Prasad, 2005]. Liberalizing parts of the capital account, e.g. company investment abroad, to reduce the upward pressure on the Renminbi may turn out counterproductive. Eve more capital could be attracted. Besides, some capital can always find its way out through invoicing or intra-firm transfer prices. Strong GDP growth and external account surpluses seem to be a sound environment for the introduction more flexible exchange rates; see The Economist, "Putting things in order", 19. March 2005, p.78.

661 CRI Online, 28. December 2005, „Ernete Zinserhöhung für kleine Bankeinlagen mit USD und HKD".

662 Analysts assume that early exchange rate liberalization could lessen the extent of capital flight in case of a banking crisis; see [Sommer, 2002], p.147. In this context capital controls as currently in place in China would theoretically allow for more exchange rate flexibility; see The Economist, "Putting things in order", 19. March 2005, p.78.

is the most influential central organ. Its seven members are appointed by the Central Committee of the CCP and form the political elite since the Committee claims authority over the Politburo and through this over all bodies of the Chinese Communist Party[663]. However, formally the National Party Congress is the highest organ in the CCP's hierarchy[664]. The Chinese Communist Party maintains its influence on the state and its organs through two main mechanisms, the Nomenclature system and civil service staffing. In the Nomenclature system the Party decides who is appointed to leading positions in the Party, the government, the judicial system, in universities as well as in state-owned enterprises and banks. The second mechanism is the influence of the CCP on civil service recruitment. Both mechanisms ensure party loyalty at the top level and at the administrative civil-servant level. The organization of the Chinese Communist Party basically mirrors the state structure to resolve oversight problems.

Reflecting the structure of the CCP the state structure comprises three basic administrative layers, i.e. central, provincial and city level[665]. The National People's Congress as the parliament-like legislature is the formally highest state organ. It nominates and elects the President and elects the Premier who is in turn nominated by the President. Under the president's authority the premier heads the State Council. The State Council is the highest administrative and cabinet-like organ of the People's Republic of China and probably its most influential body. It consists of the secretary-general of the Communist Party, the vice-premiers, state councillors, ministers and the auditor general[666]. Both, provincial governments and the so-called macro-control departments, i.e. ministries, commissions and agencies, fall under its authority.

Commissions such as the State Development and Reform Commission are usually considered more important than central ministries[667]. Central ministries have no direct authority over the provincial governments but generally have authority over the respective provincial ministries and departments. This creates a multi-principal situation at the provincial level which is

663 [Rooij, 2002], p.325. The Central Committee is more of a discussion forum but has guarded a certain degree of decentralization in the CCP, see [Shirk, 1993]), p.80.

664 An important institution in the party is the Military Affairs Committee through which the CCP decides on military issues. It reports directly to the Politburo and its Standing Committee.

665 The province level is structured in cities and counties see Article 30 of the 1982 Constitution. Prefectures are a residual of the imperial administration and still exist in some provinces such as Hunan as an intermediate level between the province and the city level. However, the Constitution does not recognize the prefecture as a separate administrative layer, see [Rooij, 2002], p.324.

666 These provisions are set out in the 19982 Constitution in the Articles 58, 62, 79, 86, and 88.

667 The State Development and Reform Commission responsible for the economic restructuring, [Rooij, 2002], p.328.

solved by informal institutions. In general the relations between the different actors in the state structure are determined by two forms of relationships, the leadership relationship of lingdao guanxi which implies direct authority and subordination, and the functional relationship of yewu guanxi with no hierarchies implied. Hence, the ranking of administrative levels and organs is essential for identifying the actual relationship. In the Chinese order provincial governments usually have the same rank as central ministries. And while the central ministry generally will be higher-ranking than a provincial ministry, the departments of both tend to have the same rank. Here, two other important relationships enter the equation to describe the rank order. The vertical relationship between an entity of a higher administrative layer and the respective entity on a subordinate administrative layer, e.g. a central ministry and a provincial ministry, is described by a leadership tiao relationship, i.e. a lingdao tiao guanxi. Contrary to this, the relationships within one administrative layer, e.g. between the provincial government and a provincial department are described by leadership kuai relationships, i.e. lingdao kuai guanxi. The kuai relationship is usually more binding due to resource control and direct influence on staffing. Since decision-making in China often involves several departments on one or more administrative level a rather fragmented picture of authority emerges[668].

Guanxi are built up over a long time - and not only when needed - with a significant importance of personal "chemistry". The Chinese perception of guanxi is slightly ambivalent and in their view guanxi have to be base on relevant qualifications. Otherwise the value of the connection is small and only little respect can be expected. Today, with the economic and social development and the growing importance of the rule of law, standardization and the de-personification of economic functions guanxi are generally losing importance. However, especially in relation with the administration guanxi remain a vital asset. This can lead to the fact that a low-key staff member is a core person in a company due to his good contacts to decision-makers. The underlying concept that determines these long-term relations is trust and the vague expectation to generate value out of the connection.

### 2.3.2. Governance

While governance consists of both formal and informal elements the situation in the Chinese banking sector illustrates that the constraints on the informal side are currently more binding. In 1997 the People's Bank has issued Guidelines for Enhancing Internal Controls of Financial Institutions to strengthen self-regulating governance, risk management and banking sector

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668 Compare [Rooij, 2002], p.329f.

development[669]. For implementation the guidelines promote mechanisms such as better management oversight and an effective control culture including risk management, segregation of duties, communication as well as monitoring elements. The Guidelines also foster prudent bank conduct, standardized authorization procedures and regular updates of internal control mechanisms to enable perpetual consolidated risk monitoring[670]. Suggestions concerning information flows and communication as stated by the BIS Internal Control Paper are less explicitly included in the Guidelines[671]. Internal monitoring - e.g. early warning systems and internal audits[672] - and corrective action in case of non-compliance are complemented by a CBRC mandate to assess internal control systems directly or via external auditors[673]. The Guidelines are less explicit on the introduction of sophisticated and comprehensive information systems to monitor business activities and on measures concerning staff training[674]. Additionally, the Chinese Company Law comprises provisions concerning the organizational structure of commercial banks and stresses the importance of a reasonable balance between decision-making, execution and supervision in banks[675]. Due to CSRC regulation shareholders of every company have to install at least three non-executive directors to improve governance. Usually, the board of directors consists of executive, non-executive and independent directors[676]. The legal basis for bank governance is supported by the market abuse and transparency directives and a growingly strict approach by the CSRC in

669 See article 6 of the PBoC Guidelines for Enhancing Internal Control of Financial Institutions. These goals roughly reflect the three categories of internal control mechanisms that are set out by the Basel Committee in its Internal Control Paper which are compliance objectives, information objectives and performance objectives. Despite the Basel information objectives are only partly covered by the Guidelines it still mirrors them since the PBoC sets standards for reliability, completeness and timeliness of information; see for example [Lou, 2001], p.236.

670 See for example principle 6 of the BIS Internal Control Paper and article 35 of the Commercial Bank Law and article 28 of the General Lending Rules of the PBC of August 1996.

671 On this see for example [Lou, 2001], p.242.

672 Due to the PBoC Guidelines the internal audit department s attributed competencies including suggestions for the design of control systems, the monitoring and evaluation of those, as well as sanctioning non-adherence to control mechanisms, see [Lou, 2001], p.244.

673 See PBoC Guidelines, article 29.

674 Features like back-ups, recovery procedures and data access control are not specifically mentioned in the more general statements of the Guidelines but electronic information systems and their security are covered; see article 19 of the PBoC Guidelines. Accounting procedures are also covered by the Commercial Bank Law in article 54. These are complemented and specified by the State Unified Accounting Standards as well as other stipulations of the Central Bank. Since 1998 the CSRC has introduced new disclosure and accounting rules that seem to show a positive impact. Often these regulations are associated with listings and the preparation and handling of it; see [Green, 2003], p.184.

675 This law covers public limited companies and joint stock companies.

676 For example the China Construction Bank has 15 members of which 4 are independent, 4 are executive and 7 are non-executive directors.

addition to CBRC regulation on issues like provisioning, capital adequacy and general bank governance. For example the CBRC has issued relatively detailed Provisional Rules on Assessment of Internal Controls of Commercial Banks enacted in February 2005. An inter-agency working group has also prepared additional changes to the Criminal Law concerning e.g. financial crimes and money laundering[677].

After the January 2002 introduction of the Code of Corporate Governance for Listed Companies the Shanghai Stock Exchange has published its first report on corporate governance in 2004[678] and the CBRC has reported for 2005 that around 800 bank employees were punished for incorrect behaviour - causing damage of around 588.5 billion RMB. In 2004 the CBRC conducted ten on-site examinations in joint-stock commercial banks and discovered an average of 100 deficiencies in internal controls in each bank, partly even more than 300[679]. The number and the volumes of financial damage are significant as is the number of high-profile corruption cases in Chinese banks, e.g. the China Construction Bank. Despite these figures and prominent and strongly negative press reports supervision and strong competition in recent years have contributed to governance improvements even in weak banks[680].

### 2.3.3. Rule of Law

Since 1978 and especially since the legal reforms of 1987 the Chinese judicial system and especially the volume and scope of laws have developed rapidly[681]. Traditionally, legislation in China preferred the notion “rule by law” and not “rule of law” which illustrates the instrumental character of legislation for the Chinese state[682]. In modern China new forms of

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677 See china.org.cn, 22. September 2005, “China verstärkt Anti-Geldwäsche-Kampagne”.

678 Issued by the CSRC and the State Economic and Trade Commission.

679 See CBRC public note “The supervisory examinations revealed the progress of joint-stock commercial banks in improving their internal controls” published on the CBRC website.

680 E.g. China Everbright Bank - a rather small bank with only 370 branches in mainland China - has unified its risk-management and compliance departments to reduce internal and external operational risks and has introduced a risk early-warning committee. Competences have been centralized so that loan officers are not subject to local government influence. In many banks credit officers report directly to the headquarters for a transition period as do many audit departments to minimize local cover-ups. The measures often also include job rotation and the evolution of corporate centres; see www.scmp.com, 3. October 2005, “Everbright cleans up governance…now for the balance sheet” by BEI Hu.

681 For a description of the Chinese court system see e.g. [Li, 2002]. Already in the mid 1990ies the Compendium of the Banking Law of the People's Republic listed 308 directives; see [Senger, 1997], p.62.

682 Due to the absolute power of monarchs, warlords or the Communist Party the rule of law has always been an unfinished system in China. Leader’s discretion and not the rule of law determined personal

legal ideologies have emerged in the form of "party policies"[683]. "Party policies" include the "political line", specific "polarity norms" and "political norms". The political line describes the general party perspective. Polarity norms solve contradictions which may arise in the interpretation of the party line[684] and political norms can be more understood as specific strategic goals[685]. The Communist Party dominates the process of issuing political norms and while being core legal institutions they are not codified and cannot be enforced. Political norms can be changed and in some cases may take less transparent or even secretive forms. These specific economic political norms have to be distinguished from the Chinese economic law[686] which in many cases still more resembles general principles rather than detailed provisions. To limit discretionary powers e.g. the 1996 Administrative Penalties Law has codified principles to control law enforcement - including the principles of fairness, transparency and openness[687]. As every legal system the Chinese is influenced by socio-cultural, political, economic factors and the institutional capacity of the Chinese state[688]. Many authors suggest that China with its particular history and culture the implementation of a legal infrastructure will remain difficult due to the heterogeneity of the Chinese society with its different communities and subcultures[689]. The Confucian background with its preference for personal relations and its scepticism towards codified law might explain difficulties with running the political and economic system on the basis of codified laws[690].

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positions. After 1949 the rudimentary judicial system was again abandoned and in this environment of insecurity family ties became more important.

683 Those are often captured by the term "Sino-Marxist" or "Marxism-Leninism with Mao Zedong ideas"; see the 1982 Chinese Constitution, preamble, paragraph 7.

684 One famous example is the polarity norm of „One Country, Two Systems" which reflects the counterparts of legal order and legal nihilism.

685 Such as the goal of positioning China as an average industrialized country by 2050 or the transition to a "socialist market economy" in October 1992. The latter was than transformed into constitutional law in March 1993; see [Senger, 1997], p.55. It has become the new Article 15 of the 1982 Chinese Constitution. The market economy in this context is perceived as an instrument for economic development and not as a goal.

686 See e.g. [Senger, 1997], p.59. Political norms of importance for the banking sector include norms on fiscal policy, investments, prices, credit, currency and are discussed in the respective chapters.

687 Article 4 of the Administrative Penalties Law. For a more detailed discussion of law enforcement see [Rooij, 2002].

688 See for example [Otto, 2002], p.29.

689 [Otto, 2002], p.30

690 Many authors claim an endemic crisis in morals and values in the current China with the Communist Party being a less important focal point after disastrous actions such as the Great Leap Forward in the late 1950ies and the Tiananmen incident in 1989. The campaigns against traditional norms of Confucianism, Daoism and Buddhism may have contributed to a void of norms that some authors see filled with the striving for individual wealth.

In practice, the legal system is still under heavy political and party influence. With the increasingly transparent degree of corruption in the Communist Party its controlling and leading function is diminished. The legal profession itself is subject to many constraints such as the shortage of lawyers and a lack of qualification, a limited independence of the judiciary, partly questionable professional ethics and in extreme cases even the physical safety of lawyers conducting their duties is endangered. Courts and the procurates in China are responsible to fight crimes, including economic crimes and corruption. In 1999 the Supreme People's Court enacted a five-year plan for court reforms to strengthen the capacity and quality of the court system. These reforms made lower courts part of the central judicial system and made them independent from localities - including their funding[691]. The role of courts in bank regulation and enforcement has to be observed since agencies such as the CBRC have accumulated legislative and executive competences and courts have not yet shown an active role in bank-related cases - probably due to political pressure. Critical topics such as the evolution of minority shareholder rights have merely formed part of court cases[692]. Additionally, the enforcement of court rulings has often been a problem in China[693]. The problems have worsened in recent years since the late 1980ies with the percentage of cases actually enforced decreasing to somewhat more than 60 percent in the mid to late 1990ies[694]

### 2.3.4. An Institutional Analysis of Informal Market-Regulating Institutions

The roles of the informal market-regulating institutions governance, rule of law and guanxi-connections in the People's Republic are highly intertwined. For instance, guanxi and the resulting politicization of the Chinese banking sector partly reinforces conflicting interests among market participants. Due to the importance of guanxi in economic interaction legalistic approaches in China are partly replaced by contractual concepts close to relational contracts. These long-term relations are managed by a network of personal and organizational connections which in turn are core assets of all market players and vital to pursue business. In this respect, guanxi are core to influencing policy outcomes. While bank and enterprise commercialization has added more economic dimensions to banking in China it still remains a

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691 [Tenev, 2002], p.130

692 Since class action has been ruled out by the Supreme Court in 2001 costs of law suits concerning minority shareholder rights and other sensitive issues may deter interested parties.

693 On a more detailed discussion of the legal framework for enforcement of civil judgment see [Chen, 2002A], p.91ff.

694 Some observes estimate that at the end of 1999 around 850,000 cases were estimated to be pending - standing for around 250 billion Renminbi in claims. However, the reliability of these figures is questionable, see [Chen, 2002A], p.88f.

common interest to maintain good relations with other market participants. Since long-standing relations can be harmed by single actions, e.g. by taking a contracting partner to court, guanxi are carefully protected. In addition to the malfunctioning judiciary this may in part explain slow changes in areas like connected lending[695] and the high numbers of out-of court mediations. However, relationship banking based on guanxi has come under intense pressure mainly due to high non-performing loan volumes. Until today commercialization and the retreat of relationship-based business has been a highly political discussion in which modernistic approaches to society and the economy conflict with more traditional Chinese or Marxist ideas.

The sociological, political and economic dimensions of guanxi have made them an important underlying driver for informational and incentive problems in the Chinese banking sector. These connections and their evolution have obviously contributed to overcome gaps in the formal institutional framework of the Chinese banking sector. With an increasing degree of formalization, however, guanxi have created additional inefficiencies and frictions. In the form of side-contracts via guanxi provincial and party leaders interfere with important reforms and diminish positive effects e.g. of CBRC initiatives[696]. The resulting insecurity has significantly increased contracting costs for market participants and has fostered improvisation and relational contracts in many areas. Considering the economic reforms with their partly conflicting goals it comes as no surprise that the involved private and public market participants complain about overlapping competences, inertia and ambiguous incentive schemes. The complex system of guanxi with the resulting complex agency problems - including simple cronyism - is added to by the relations between returned overseas Chinese, the so-called haiguipai, and Mainland-Chinese. The returnees are often better educated and experienced and have occupied important posts in the government. Their influence is limited due to less robust and less wide-spread guanxi[697]. So the potential positive impact of the haiguipai on indicators like sound management is constrained[698].

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695 Bribing, however, is highly unwelcome in the guanxi system and may also destroy reputation. Depending on the guanxi of both partners a significant damage of reputation can result for one or both parties; see[Klug, 1997], p.49

696 Even though the CBRC is a spin-off from the central bank its organizational reputation and connections needed time to develop. To increase credibility and capacity the CBRC has established e.g. the foreign advisory council; see [Luo, 2003], p.14. Among those are Sir Edward George, former governor of the Bank of England and Andrew Crockett, former general manager of the BIS, see China-ready.com, “China’s Central Banking Regulatory Commission Brings In Foreign Team”, 21. November 2003.

697 Another reason could be the accumulation in “modern” agencies like the CBRC or the CSRC.

Struggles between government agencies and its protagonists for influence in many cases have a disturbing influence on reforms and macroprudential indicators in the banking sector. In some cases the voice option for the players may become too expensive so that the exit option becomes more interesting despite the implied sunk costs of the partner-specific investments. For example monetary policies and bank-related tax policies are often hampered by struggles between the People's Bank, the CBRC, the Ministry of Finance - and ultimately the State Council. In monetary policies the law grants the same status to the central bank as to the Ministry of Finance. The latter is represented in the Monetary Policy Committee[699] of the central bank which suggests important monetary policy steps to the State Council. Here, in some cases fiscal and monetary decision-makers will differ in their views so that at the end their ties to the State Council can be a key factor for the outcome[700]. Since the Central Bank reports to the Standing Committee of the National People's Congress in monetary policy issues it is not completely dependent on the State Council and can perhaps derive some degrees of freedom by manoeuvring between the two principals[701]. For the Monetary Policy Committee, once regarded as the core of an independent monetary policy, the formally granted central bank independence has not materialized so that for the moment the exit option as an advisor to the State Council is more valuable - to the detriment of central bank independence. Two scenarios may emerge from this limited central bank independence. Either policy makers may have a low inflation bias when they consider the negative repercussions of

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698 The failed suggestion to apply international accounting standards to Chinese companies is only one of the moments when limits of their influence become visible. On more market-based reforms see for example [Green, 2003], p.173f.

699 This PBoC Committee set out in article 11 was intended as a first step towards future central bank independence. However, a power struggle between the Central Bank, the State Council and the National People's Congress on the MPC's competences and location lead to the reduction of its tasks which are now determined by the State Council. As a consequence monetary policy decisions suggested by the PBoC's Monetary Policy Committee have to be approved by the State Council; see article 5 of The Central Bank Law. For a detailed discussion see also [Li, 1997], p.205.

700 For example, an increase in interest rates to curb inflation would also increase government refinancing costs. On such tensions see [Frankel, 1995], p.171ff. Before 2003 the PBoC still was responsible for banking supervision which then created other conflicts of interest and made both monetary policy and banking regulation and supervision less efficient. For instance by tightening supervisory policies the Central Bank targeted monetary growth. In the early 1990ies lax monetary policies and lenient bank supervision caused created liquidity and financial instability. One part of the policy response of the central bank was to tighten bank supervision in late 1993 mixing the two functions of the PBoC. However, there seems to be no clear trend of institutionally separating supervision from monetary policy. In the OECD 75 percent of the member states leave both function with one entity; see China Daily, “Banking Regulatory Body for China”, 17. March 2003.

701 [Lou, 2001], p.194

high inflation rates in China, especially end of the 1940ies[702]. In a scenario with worsening social, economic and political circumstances they may, however, abandon a prudent monetary strategy and may opt to use this discretionary power to buffer the consequences. This would increase risks related to macroeconomic indicators like the exchange rate, the interest rate, fiscal policy, the balance of payments, economic growth and especially asset and lending developments - including bank asset quality. The institutional setting is further distorted by possible discretion due to the limited central bank independence in China. Despite the higher degree of formal independence granted in the 1995 Central Bank law the People's Bank remains under the direct authority and administration of the State Council[703]. In fact, major decisions like interest rate and exchange rate changes have to be approved by the State Council. The organic safeguard mechanisms[704] are subject to a strong influence of the Chinese Communist Party. The People's Bank's board of directors still consists of the presidents of the big four state banks and a vice minister of the Ministry of Finance. The governor and its deputies are nominated by the State Council and the former has to be approved by the National People's Congress[705]. Hence, goal independence, instrument independence and personal independence is limited at the central bank[706] due to multiple-principal and multiple-agent situations which have fostered ambiguous goals. For example article 32 of the Central Bank Law possibly implies that the State Council can order the central bank to grant credit to certain non-bank financial institutions which could lead to indirect lending to the public or quasi-public sector[707]. Contrary to this, central bank independence holds towards local and provincial entities which are under financial pressure due to the commercialization of state

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702 [Geiger, 2002], p.4

703 See for example [Wan, 1999], p.176. On tasks, structure and organization before 1995 see [Liu, 1996], p.147ff. Since then the PBoC is not allowed any more to grant credit to commercial banks for periods exceeding one year. Credit facilities for the government were abolished completely. On Central Bank functions in emerging markets see [Fry, 1996], p.90ff. On the history of the PBC see [Popp, 1996], p.30f. and [Schröder, 1994], p.77ff. In December 2002 after the 16th National Congress of the Communist Party Zhou Xiaochuan was appointed President of the PBoC.

704 Recruitment, office terms, dismissal, salary and prohibitions and restrictions during and after term; compare [Lou, 2001], p.192ff.

705 The NPC is often discredited as rubber stamping State Council decisions. While this has proven wrong in several cases legitimacy may anyway be reduced in comparison to other political systems. The State Council can decide about the appointment and the removal of the deputy governors whose number is formally not limited and whose qualifications are not set out by the Central Bank Law besides provisions that the candidate has to be diligent and has to refrain from abuse of powers. The Monetary Policy Committee consists of only one external delegate of the Chinese Academy of Social Science while the rest are high-level bureaucrats; see for example [Kwan, 2004].

706 See [Bofinger, 2001], p.210ff.

banks and enterprises[708]. In practice, however, local bank branches are often still under the control of local politicians and thus have the incentive to deviate from central bank policies by creating e.g. illegal credit facilities[709]. This organizational incentive distortion may consequently increase risks for e.g. asset quality, governance and profitability.

Contrary to the central bank with its long history the actual administrative ranking of the CBRC within the Chinese administration still evolves and strongly depends on its top personnel. Due to good connections to the central government its influence on banking sector reforms is large while its influence in the implementation of reforms, especially on the sub-national level is diminished due to strained relations with provincial and party leaders with diverging priorities. Especially local governments have reduced incentives to grant the required support for the CBRC which can harm the implementation of vital regulation or supervision[710]. In fact, the question of competences, ranking and guanxi even hampers the information exchange between the three regulatory agencies, the CIRC, CSRC, and the CBRC[711]. In particular in the case of the highly problematic financial conglomerates with non-financial ownership a coherent supervisory approach has not yet been found and information exchange procedures are not sufficient. Since the agencies have little incentive to grant informational insight into their field of competences they are only starting to monitor cross-market risks. The relevant issues are in fact mainly discussed in periodic joint meetings of

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707 The independence of the PBoC as stated in articles 2, 7 and 32 of the Central Bank Law implies an authority to issue directives for the State Council towards the Central Bank.

708 See for example [Li, 1997], p.204

709 See e.g. [Xu, 2000], p.127.

710 Due to Article 13 of the Law on Bank Regulation and Supervision. This includes the resolution of problems with specific banks, i.e. financial support, and the enforcement of actions decreed by the CBRC against financial activities.

711 The CBRC supervises and regulates banks, financial asset management companies, trust investment companies and other deposit-taking financial institutions. The CSRC covers the securities and futures markets while the CIRC while the CIRC is responsible for the insurance industry. Financial holding companies are monitored by the supervisors whose business lines and responsibilities are affected which may - despite the general idea of information sharing - turn out to be problematic in practice. Since the Ministry of Finance and the People's Bank of China are often also involved in regulatory action or its implementation the situation may be complicated further when for example the regulation and supervision of financial conglomerates is concerned. See “Memorandum of Understanding on Division of Responsibilities and Cooperation in Financial Supervision and Regulation among the China Banking Regulatory Commission, the China Securities Regulatory Commission and the China Insurance Regulatory Commission” published on the CBRC website, especially article 11 (8). Here the guiding principles of separate supervision, division of responsibilities, coordination and collabouration, transparency and efficiency are laid down.

senior officials[712]. Here, inter-agency relations merely exist and guanxi on the individual level are not enough to obtain information and to avoid contagion in the banking sector - leaving lenders and borrowers in jeopardy.

Conflicts of interest between government agencies and the banking sector and a politicization of the banking business are obvious in the case of window guidance. The government and the central bank use this sort of moral suasion to offset institutional distortions and state frankly that commercial banks should pay more attention to the official national industrial policies and credit policy in the process of resource allocation. With risk management still inexperienced part of the guidance sets positive incentives for banks to avoid future risks, e.g. for bank asset quality[713]. In order to preserve their guanxi with the People's Bank commercial banks usually have to follow window guidance at least partially - at the cost of forgone business opportunities and management independence. Hence, on the bank-level the handling of various government agencies, decision-making hierarchies, and the management of the respective guanxi-connections adds significant distortions and transaction costs to economic interaction[714]. The permanent distortions in the process of resource allocation are for example revealed when private entrepreneurs have to back their economic success by assuming official posts, e.g. in state-controlled federations of industry and commerce or as advisors to local, city or the central governments[715]. Especially small and medium enterprises have suffered from their lacking guanxi to the banking sector and the state-owned banks in particular[716]. However, the CBRC guidelines on SME lending of fall 2005 have been greeted lukewarm since banks fear disclosure practices of these companies and higher transaction costs for smaller credit volumes without collateral[717].

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712 The basis is a Memorandum of Understanding concerning the responsibilities and the cooperation between the three institutions. A regular information exchange mechanisms is called for in the MoU. In practice the flow is still limited to higher ranks and limited occasions. The Joint Meeting Mechanism includes the three chairmen and is held quarterly to cover cross-sector risks.

713 See for example Wu Xiaoling at the Annual Conference of China Economic Forecast. Analysis and Outlook on 20. March 2005, “Improving Monetary Policy Transmission, Creating a Sound Financial Environment”.

714 [Klug, 1997], p.47ff.

715 See the example of Guo Guangchang, the owner of Shanghai Fosun HighTechnology; see The Economist, “Some like it hot”, 19. March 2005, p.68.

716 See e.g. Shanghai Fosun High Technology, owned by Guo Guang-chang. Good official ties and reputation have helped business but cannot prevent problems when reaching a certain top position, see The Economist, p.68, 19. March 2005.

717 While the interdependency of the institutional variables is obvious, this case also shows that guanxi are still more relevant than a credit based on a cash-flow analysis. With strong competition in the Chinese banking sector SMEs may become more of a business focus when credit assessment has been improved.

The case of rural credit cooperatives further illustrates the negative repercussions of guanxi in the banking sector. Due to strong local government influence the financial state of the cooperatives is desperate even after recent recapitalization efforts. The resulting fragmentation of the banking sector in China limits contagion risks triggered by credit cooperatives but their local focus makes them much more susceptible to government interference so that guanxi with the government will remain vital to obtain credit[718]. Since in these cases customer creditworthiness is less important this procedure does not only undermine sound management but can also harm asset quality and profitability. Since guanxi additionally play in favour of domestic banks the competitive effect of foreign banks entering the market is in fact reduced since long-standing relations to the government and to large enterprises as well as the same cultural background facilitates market access and access to decision-makers[719]. Similarly, foreign banks had to purchase stakes in state-owned banks before they were admitted to the consortium which managed the initial public offerings[720]. The highly distortive effect of guanxi in banking has shown in many cases[721]. While certainly belonging to the Chinese approach to banking their effect on macroprudential indicators is mixed. Capital adequacy ratios have partly improved due to connections to the political systems and these ties also ensure business opportunities and thus profits in the current China. This distorted competition and administered resource allocation also generates mixed impacts concerning economic growth and the interest rates since pricing may also be distorted by guanxi - or government regulation. Clearly, however, asset quality and management soundness suffer and excessive developments in lending are supported.

Current governance structures in China can only partly offset these distortions. While the formal governance rules are similar to internationally common governance settings their perception, ranking and implementation differs significantly. As a consequence, a completely

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718 For instance, different criteria for collateralization have been applied, see [Popp, 1996], p.56f.

719 See for example [Wolff, 2002], p.106. Market presence of foreign banks also symbolizes loyalty to China and may well be transformed in banking licenses and permissions to open new business and branches. See for example Banco Indosuez that is permanently present in Shanghai since 1898.

720 Banks were keen to gain these mandates not only because the league tables qualify them for further transactions but also because the gained guanxi are highly valuable.

721 For example Huaneng Power took a three percent equity stake in China Three Gorges Electric Power despite independent calculations indicate that the return on investment may well be below the capital costs for the investments. The good reputation of Huaneng, which is even listed in New York was allegedly put at risk because its chairman was the son of Li Peng (then leader of the National People's Congress) who personally supported the project, see [Green, 2003], p.123f. Another example would be the management control of Newbridge Capital. Its partners have good relations with governments and Newbridge itself is well-connected in China with a good reputation of supporting economic development and not only maximizing individual profits.

different incentive scheme arises for market participants. Conflicting interests exist with respect to the high degree of political influence and government activity in the banking sector[722]. In fact, the impact of anti-corruption measures is usually diminished due to the administration's involvement in various business activities[723]. But also organizational issues in companies and banks to implement governance requirements are highly disputed among market participants[724]. In a common effort the People's Bank together with the CSRC and the CBRC have strengthened and coordinated their measures[725] while the media, the public and even courts are getting more involved in monitoring the banking sector[726].

The rapid evolution of the governance framework with shifts of responsibilities in government agencies and former state banks has, however, contributed to a variety of informational and incentive problems in economic interaction. One reason for this are multiple-principal and multiple-agent situations which are additionally complicated by side-contracts of market participants induced by guanxi and other disturbing influences. Those have prevented the evolution of long-term and partner-specific relational contracts covering behavioural codes of conducts in coherence with governance rules. As a result e.g. accountability is diminished and private control mechanisms have not yet replaced fading public control. Especially when state interests are affected governance provisions tend to be less specific or insufficient. These state interests include internal communication flows[727], shareholder and investor protection and organizational issues like the role of the board of directors and the influence of institutional investors. The results are control struggles and a remaining high government influence e.g. of local governments on small banks. In many

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722 Including the efforts of the government to indirectly use governance to achieve other goals.

723 Compare for example in [Feng, 2002], p.121f. See the ousting of Zhang Enzhao as chairman of the China Construction Bank in March 2005 for allegations of corruption, The Economist, 19. March 2005. Since governance scandals have also hit private companies the correlation between ownership structures and governance seems intact but weakened in recent times. See for example the Ying Guang Xia scandal in Mainland China, a blue-chip high-tech company, has forged customs receipts and made up profit figures to support its already strongly increasing share price.

For example anti-money laundering measures by accounting better for large-scale and suspicious transactions; see [Zhou, 2005], p.6. E.g. the previous CSRC deputy chairman Laura Cha was known as pushing corporate governance reforms.

724 Including issues such as management accountability and appointment procedures; for more see among others [Thomas, 2005]

725 For example anti-money laundering measures by accounting better for large-scale and suspicious transactions; see [Zhou, 2005], p.6. E.g. the previous CSRC deputy chairman Laura Cha was known as pushing corporate governance reforms.

726 See e.g. [Green, 2003], p.213.

banks the top management is usually of political rank appointed by the relevant governments. Due to job rotation mechanisms - designed to prevent fraud and defalcation - the incentive scheme for managers is distorted since a political career afterwards can be associated with either profitable bank management or with building good connections with government officials on all levels. This can significantly harm profitability and bank asset quality by diminishing the role of formally existing governance structures. Traditional bank bodies like the party committee can additionally influence bank policies since the bank management needs good political ties e.g. to generate business with large state-owned enterprises. To overcome these sources of conflict and competence struggles internal procedures have been established including responsibility contracts between management[728] and shareholders and collective contracts between the management and the trade unions. Nevertheless, while Chinese top executives are often aware of the importance of good governance the new business model still has to trickle down to the middle management[729]. While in such complex environments informal personal relations become vital - but unpredictable - elements to sustain the efficiency of a bank, property rights positions can be severely disturbed by the diffuse and inadequate distribution of power. Ownership rights, e.g. the right to appropriate returns are often impaired in the Chinese practice[730]. The resulting capital misallocation implies the costly and inefficient expansion of branch numbers and an artificially low role for private monitoring and resulting rent-seeking opportunities[731].

In addition to ownership and management issues, the organizational design of decision-making processes and internal control systems are strongly depending on governance structures[732]. In many cases credit approval procedures lack standardization and thus provide incentives to pursue rent-seeking opportunities or to accept common but illegal kick-backs. Branch directors are often only loosely monitored and internal and external controls still do

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727 The PBoC Guidelines do not specify the design of the internal information flow. In practice, most banks lack efficient internal and external communication processes which implies significant risks for operations and strategic planning; see [Lou, 2001], p.243

728 Concerning bank management especially the positions of the Chief Executive Officer, the Chief Financial Officer, the Chief Risk Officer and the Chief Technology Officer are mentioned by the CBRC.

729 See for example [Orr, 2004A], p.20f.

730 For example employee ownership can harm the interests of a bank when particular interest is more important than the economic success of the company. Local governments partly act as mediators in case of conflict by influencing dividends and taxes while being able to grant implicit or explicit guarantees.

731 [Tenev, 2002], p.22f.

732 See for example the CBRC statement “The CBRC calls for further improvement of corporate governance at banks”

not strictly bind[733]. But even basic organizational issues like the rules relevant for the board of directors are often insufficient to curb distortions in the incentive scheme for managers and involved politicians[734]. Hence, the board of directors plays an inadequately small role in issues like staff selection and salary structures[735]. Staff members are allowed to serve on several jobs simultaneously, e.g. directors also may act as managers[736] while a supervisory board can usually only be found in the few banks with private shareholders[737]. Since usually shareholder meetings do not take place publicly monitoring is almost exclusively conducted by the board of directors so that public monitoring, e.g. by the media is hampered. In this context the large proportion of legal person shareholders reinforces monitoring and governance problems[738]. With minority shareholder right impaired internal reforms - like the strengthening of the board of directors through more non-executive directors - are complicated[739]. In an attempt to control the symptoms of these problems, banks increasingly fight fraud by reinforcing internal inspection teams[740] and the CBRC has uncovered around 240 cases of corruption in the first half of 2005 involving losses of around 1.6 billion RMB[741]. This illustrates the distortions set out by an insufficiently implemented governance scheme which cannot control for prevailing and detrimental informal conventions. Since some shades of corruption like a "giving and taking" are currently considered legitimate by many Chinese, the formal governance rules

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733 Especially scandals at the China Construction Bank where the last two chairmen were replaced due to fraud and corruption harm the prospects of the partly floatation planned for end of 2005 together with the Bank of Communications and the Bank of China. Zhang Enzhao was ousted for taking bribes of around one million US Dollars from a US firm in the context of the acquisition of new information technology. His predecessor Wang Xuebing was already sentenced to twelve years in prison; see The Economist, "China Corruption Bank", 19. March 2005, p.75f. and The Economist, "Personal banking", 26. March 2005, p.71. For example the Bank of China "tried and penalized" 50,000 employees fir fraud up to end 2004; see The Economist, "China's banks: Root and branch", 4. November 2004, p.77f.

734 On more details see for example [Lou, 2001], p.247f.

735 Which are important to set incentives for prudent credit risk management.

736 Due to Article 69 of the Company Law.

737 Boards of state-owned banks base the decision-making on articles 46 and 66 of the Company Law.

738 In some cases legal persons influence management decisions even without an actual majority. Especially rogue controlling shareholders, e.g. in the form of legal persons, have transferred fixed and financial assets unharmed since they have been attributed the right to do so. Also loans and guarantees to parent companies or subsidies are used to transfer the assets and are often not repaid. Hence, affiliate loan lists have to be published since the end of 2001; see [Green, 2003], p.133ff.

739 Provenance may turn out to be less important than a transparent structure of management responsibilities and liabilities. On this see for example Stoyan Tenev and Zhang Chunlin from the World Bank Group, quoted in [Green, 2003], p.186

740 For example the Bank of China has a group of 3,000 inspectors since February 2005.

741 www.scmp.com, 24. October 2005, "Insiders plunder 1.6b yuan from state banks in first half".

cannot work due to an existing incongruence between formal and informal institutions[742]. Despite some exposed investigations induced by significant fraud cases[743] the government efforts on the different state levels are ambiguous. This is perhaps due to the fact that 80 percent of bank scandals can be traced back to corrupt officials abusing their position[744]. This illustrates the real problems in the practical implementation of governance structures in China. As a result the current governance setting via the various channels already discussed above affects all macroprudential indicators in a negative way.

The discussed distortions also diminish the effectiveness of the rule of law in the People's Republic. While officials stress that the rule of law would be a common interest in China, politicians and managers still partly perceive it as a disturbing factor which limits justified discretionary power. Hence, conflicting interests during the reform process are magnified by a general weakness of the judicial system[745]. Conflicts arise especially when judicial corruption, judicial independence, unfair court rulings or the high costs and the low efficiency of the Chinese court system are concerned.

Since these issues affect the individual influence of specific market participants, informational and incentive problems resulting from the lacking rule of law are only slowly addressed. This starts with the fact that the institutional ranking in China implies that party policies are still superior to codified law which can disturb the applicability and distort the functionality of the latter. Together with the more general formulation of many laws the administrative discretionary power is rooted in these partly conflicting rule sets, e.g. concerning property rights issues. In general, the ranking and the implementation of formal laws seems discretionary and partly contradictory. For example the Bankruptcy Law and the Enterprise Law were promulgated and pushed through the legislative process only to be followed by circulars of the central government to the courts demanding that the new laws should not be

742 For older examples of corruption cases see China Economic Review, Online edition, “Fraud Discovered at Banks”, August 2003.

743 See for example the BBC report “China's ruling party expels top banker”, 5. November 2002, quoted in www.websiteaboutchina.com/mark/market_2.htm, August 2003 or most prominently the Zhang case at the CCB. The International Finance Corporation in Beijing estimates that around 80 percent of the securities traders of the first generation have been sentenced to prison due to fraud; see [Siackhachanh, 2002], p.10. Significant theft due to a lack of control also seems to be possible as a case in the Bank of China shows where a manager allegedly has stolen up to 725 million US Dollars; see [Lague, 2003], p.44.

744 According to CBRC; see for example www.scmp.com, 14. June 2005, “Corrupt officials blamed for 80 pc of bank scandals” by Peggie Yuan.

745 [Peerenboom, 2002], p.126f.

applied[746]. Since many provisions are still open to interpretation, coherence in legal interpretation throughout the different provinces of China is hampered. For example, the lacking clear definition of financial and banking crimes in the Criminal Law has lead to many unsuccessful attempts of regulators to accuse fraud in banks and the rejection of many cases in court[747]. Court effectiveness is not only aggravated by the unclear legal basis but also by the multiple-principle situation which has clearly distorted past rulings. Judicial independence exists only formally and not on the level of individual judges but on court level. In practice courts usually have several principals such as the party head of legal affairs in the local government, the party head of the political and legal affairs party committee and on a higher level the national and sub-national People's Congresses and their Standing Committees. Statements on specific court cases issued by these parties are official guidelines and basically have to be followed by courts. This contributes to the still prevailing impression that the court system is an extension of the executive branch. In these complex environments with lacking accountability judicial corruption occurs on the individual level where judges accept bribes or favours. An even more problematic issue is posed when entire courts do not accept cases against local companies or officials - undermining the legal position of the non-local party[748]. Both forms of legal corruption are still deeply rooted in the Chinese court system[749]. With severe problems in judicial cooperation - especially when more than one province is included - courts often fail in enforcing their verdicts and thus lose further credibility[750]. Since verdicts are often published in a very general way without explanations and even without the naming of the applied relevant legal provisions parties often doubt court quality[751]. Court accessibility

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746 [Li, 2002], p.58f.

747 The Standing Committee of the NPC has to decide a proposal for interpretation submitted by the CBRC. This probably includes a broadening of scope to embezzlement and illegal loan offerings. Also the State Council's Legislative Affairs Office has obviously set up a study task force to address this subject and to enhance international cooperation leading to repatriation of assets and suspects; see for example www.scmp.com, 17. June 2005, “Watchdog clamping down on bank crime” by Cary HUANG.

748 Empirically, locals have a twice as good chance to succeed in court as non-locals have. An even after conviction locals have higher chances to escape the consequences of the verdict. This seems to be due to the financial dependence of enforcement agencies from local governments. Those have budgetary powers and personal links via the recruitment processes; see [Tenev, 2002], p.21.

749 [Li, 2002], p.58. Also the OECD has stated that China applies its laws and regulations in part unsystematically.

750 Also the enforcement of financial crimes is problematic due to the dependence of the regulatory agencies on the enforcement such as the Ministry of Public Security.

751 [Li, 2002], p.p.60f.

is low since reductions or exemptions from the numerous fees[752] are in practice often difficult to get. This can lead to significant financial burdens for the parties - without enforcement guarantee. The delay and the postponement of rulings add to the diminishing acceptance of the court and create the basis for the prevailing preference in China for out-of-court dispute resolution mechanisms and especially for mediation[753].

The high degree of politicization and the informal influence on the legal system have reduced the effectiveness of laws important for bank stability, e.g. the Administrative Penalties Law[754]. Ideological differences between different government factions introduce complex political problems to the legal system. As observed in the recent case of the new property law the legal system has often been the battleground for political fights which has added insecurity and incoherence to the judiciary. While the Chinese legal system aims at promoting the picture of an accessible and transparent state[755] the mentioned issues illustrate that the political concept of a separation of powers is still uncommon in the People's Republic[756]. This has negative repercussions on the effectiveness of the legal system, governance and the rule of law. Incentives for bank management and bank customers to pursue e.g. sound management practices are, hence, severely reduced. In practice, the lack of rule of law shows in the discretionary approach to corruption in showcases against officials and entrepreneurs. Those are tolerated up to a certain point until the judiciary - hence the party - clamps down on

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752 Fees for acceptance in civil, economic, maritime and administrative cases have to be paid due to article 1 of the Methods of Collection of Litigation Fees by the People's Courts. Property-related and administrative cases also require a fee for appraisal, for issuing an announcement, for translation, for witnesses, a fee for guarantees and a fee for enforcement measures (article 2). Other fees are also possible due to article 4 and can even reach the amount of the general acceptance fee. See for example [Li, 2002], p.61.

753 On a detailed discussion of problems with the trial system see [Li, 2002], p.63ff.

754 In analyses of law-in-action scholars tend to find problems concerning the implementation of law in China; see e.g. [Chen, 2002], p.4ff. This may be also due to the lacking differentiation between governmental and economic power.

755 [Jones, 1995], p.57f.

756 Due to the involvement of the administration in judiciary issues the limits of the legislative, executive and judicial branches are not clearly defined. Overstepping of authority and competences is common with the Communist Party as the highest body. This is partly due to the separation of administrative and criminal penalties. The interference of national and local legislatures with the implementation of laws is often justified with constitutional supervisory rights of the legislature. However, the constitutional basis for adjudication, i.e. the interference by supervision with specific cases is disputed and has increased doubts about the independence of the Chinese court system. The other three constitutional powers are the right to legislate, the right to make decisions in essential issues and the right to select and recall, see e.g. [Chen, 2002], p.7. Due to the lack of specific competences and, hence, rent-seeking opportunities the legislature has the reputation of being the least corrupt authority; compare [Chen, 2002], p.5ff. and [Otto, 2002], p.31f.

them[757]. While the charges put forth are probably correct in many cases, it is more the seemingly random and discretionary process of singling-out individuals for wide-spread illegal action that undermines the legal system's credibility[758]. Since in many cases regulation and laws are adjusted ex-post to common business practices a high degree of uncertainty exists among market participants. Without clear sanctioning mechanisms for existing rules the incentive to adhere is reduced. The current situation in China implies that individuals act in a legal vacuum where party and other political connections are surrogates of legal certainty and rule of law. As a result, these factors have lead to an ambiguous ranking of formal laws and an almost traditional non-adherence to laws[759]. As a consequence of the lack of rule of law in China, banking sector development is hampered e.g. due to the unclear legal status of many small and still illegal financial institutions[760]. Banks also have reduced incentives to adhere to e.g. bank regulation which diminishes management soundness an increases the risk of excessive lending. Asset quality decreases since the financial claims of banks can partly not be enforced, e.g. when mortgages need to be called-in. Hence, also capital adequacy, risk profiles and bank profitability suffer. The legal uncertainty creates contagion risks and deters solid international investors who could contribute to sustainable economic growth in China. As a conclusion the impact of informal market-regulating institutions on banking sector stability in China is either mixed or negative. This fact is both due to institutional flaws and the high degree of interference with formal market-regulating and market-stabilizing institutions.

## 2.4. Informal Market-Stabilizing Institutions

### 2.4.1. Credibility and Trust Levels

Confidence and trust levels in the Chinese economy and banking sector are strongly influenced by the economic, political and social performance of the current system. Not only has the Communist Parts repeatedly drawn on economic successes to justify its dominance in other areas of society. But also are related performance indicators benchmarks for system trust which has a significant impact on banking sector variables like management soundness, asset prices, risk positions and spreads as well as fiscal and monetary policies and the

757 See for example Yang Rong the former chairman and majority holder of Brilliance China Automotive Holdings Ltd. In Liaoning Province whose stock in a joint-venture with BMW was transferred to the Liaoning government at allegedly only six percent of its then current market value; see FAZ, “Chinesischer Unternehmer wehrt sich gegen Enteignung”, 23. August 2003.

758 The often quoted “economic crimes” can include a wide range of actions common in many business areas in China.

759 On the ex-post adjustments see for example [Murphy, 2003], p.31.

exchange rate. Political performance measured in elections and participation is certainly not an appropriate means to assess government and regulatory credibility. Nevertheless, the core values of stability and continuity, core messages that prevail in political and social discussions in China, are still high on the agenda for Chinese citizens who are focused on economic development - either as a result of political education and socialization or as an intrinsic motivation after years of economic distress. Hence, while the government has initiated reforms and elections on the village level to control governance and qualification issues in local party units the single-party approach is state doctrine. With intra-party elections being opaque and with lacking transparency in many decision-making processes it is no surprise that government discretion occurs on many levels. Large degrees of discretion like in the legal system or ownership rights have, however, lead to diminishing credibility levels. Still and despite frequent corruption allegations and charges which increasingly lead to political unrest - mainly in rural areas - the credibility of government agencies relatively high. Even large piles of non-performing assets have not deterred savers from depositing money in state banks. In general, the relatively recent regulatory agencies responsible for the banking sector have a good reputation and despite severe capacity constraints enjoy high trust levels due to their qualified personnel and the handling of unviable banks and the consequences of the Asian financial crisis. Government credibility and the lack of experience with severe financial or banking crises have decreased risk-sensitivity among market participants. A more technical approach to risk management and a general belief that economic development and in particular crises can and will be handled by the respective authorities is wide-spread among market participants. Social performance was long considered adequate since many market-participants priced-in the special impacts of economic transition. The collapse of social networks like welfare and public health care has posed significant problems especially for dwellers of rural areas. More recently this economic divergence within China has fostered ideological discussion and protests concerning the social performance in recent years[761]. The growing differences between rich and poor, rural and urban areas as well as coastal and inland

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760 [Vougioukas, 2003], p.22. Since those are not supervised officially they may reinforce implicit contagion risks in the Chinese banking sector.

761 For example prices of agricultural production means increased significantly while prices for some agricultural products increased less or even fell which put farmers in a difficult situation concerning their income and their repayment capacity for bank loans. Fixed asset investments of farmers for example grew by more than 11 percent in the first quarter of 2005 which was another increased compared to 2004. Industrial production grew further while growth of enterprise profits decelerated in the first quarter 2005 by 27 percent on a year-on-year basis but still growing by around 17 percent. Due

regions have aggravated and culminate in intra-party struggles and even public criticism of Deng Xiaoping's growth doctrine. Obviously, the stellar performance of the Chinese economy has immensely increased trust and credibility levels and optimism in China. High growth figures of more than nine percent for several consecutive years, high foreign reserves and increasing per capita incomes[762] have supported the credibility of government agencies. However, there are some indicators like the remaining reluctance to invest in stock markets that reflect reservations of investors concerning the reliability of government agencies and the fear for ex-post opportunism during economic reforms and listings of state-owned companies[763].

### 2.4.2. Mentality and Innovation

Despite recent reform efforts Chinese banks are still chronically overstaffed and show unsustainable asset per employee ratios[764]. Contrary to large state banks who have initiated staff reduction programs with rather opaque criteria small and middle sized banks are expanding so that specialized staff shifts from the big four and big banks to the smaller banks. With growing bank balance sheets - in some cases by more than 50 percent - qualified personnel is rare and existing staff only partly meets the requirements. Institutions like "iron rice bowls" or "iron chairs" as a lifelong job guarantee are vanishing slowly and are replaced by recruitment criteria based on qualification[765]. This has also initiated a change in recruitment procedures. In some cases like in the Bank of China employees were dismissed and had to reapply for their posts to increase competition[766]. Under the current relevant

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to the PBoC average prices in Q1 2005 for agricultural products increased by 6.4 percent while Prices for agricultural production means increased by 10.6 percent, those of fertilizers even by 14.5 percent.

762 1,704 US Dollars per capita per end of 2005; see Deutsche Bank Research.

763 On traditional job structures see for example [Wolff, 2002], p.103.

764 The total staff numbers in the banking sector are not clear. The Industrial and Commercial Bank has total assets of around 6.14 trillion RMB and more than 21,000 branches due to its website. The China Construction Bank has 4.22 trillion RMB in total assets and around 14,250 branches. For example the Bank of China publishes a cost-earnings-ratio of 39.73 (2003); see annual reports and corporate information.

765 [Wolff, 2002], p.108

766 Due to Zhu Min, Head of Restructuring and Listing at Bank of China; see The Economist, 4. November 2004, "China's Banks: Root and branch", p.77f. Article 36 of the Commercial Bank Law states a general duty to collateralize credits and to evaluate carefully the value of the collateral. Article 35 states that the bank has to investigate the creditworthiness thoroughly concerning for example the planned investment and repayment capacities and terms. Paragraph 35 also organizationally split the credit process into the approval of the credit and its surveillance which was suggested by the World Bank to the BoCom in the mid 1980ies. The developments of value-at-risk since the 1990ies has facilitated

provisions the bank board decides[767] about senior management which then has to be approved by the CBRC[768]. In the large state banks the chairman of the board or the governor are appointed by the State Council while department heads are still strongly suggested by the bank party committees. Due to the increased competition for talent staff turnover has increased by 10 percent in the first nine months of 2005 alone and pay rises have exceeded an average of three percent. Labour shortage in some sectors has lead to wage increases between 30 and 100 percent[769]. Especially experienced personnel for higher management positions is lacking while many despite many young and well-educated professionals have entered the market[770]. With lacking nationwide education standards also in sectors with apprenticeships specific qualities for the banking sector are still lacking[771]. The ongoing change in recruiting also shows in increasing numbers for positions, e.g. in state-owned banks[772]. It is, however, expected that existing cutting-edge expertise still needs a few years to grow through the ranks in Chinese banks.

In fact, the change of workforce in state banks has changed the corporate culture more than e.g. shifts of ownership. Top-down approaches are less accepted than before and the traditionally strong employee representation - widely common in companies formerly or currently affiliated to the state - change under the influence of a growing private sector and foreign investors[773]. And while bank staff partly clings to traditional business practices such as

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project planning and systematic risk management for market risk under normal volatility significantly. On this issue see for example [Li, 1997], p.208.

767 Due to the Commercial Bank Law articles 46 and 112. In the business process issuing bonds has to be approved by the PBoC while capital increases have to be agreed to by the Ministry of Finance.

768 See article 24 of the Commercial Bank Law.

769 Rural wages have officially risen by 6.8 percent in 2004.

770 The government has set up a Committee on Human Resources Development in the Financial Sector comprising 26 people in four working groups and trying to find reasons why local staff is often not qualified to take the top posts in banks and investment banks; groups on communication between business and universities, statistical requirements to be able to assess the problem better, the design of on-the-job-training programs, and the definition of long-term needed qualifications for the banking sector; see www.scmp.com, 28. October 2005, “Skills gap pits bank against bank in scramble for staff” by Enoch Yiu.

771 See Wirtschaftswoche, 21. June 2005, „China: Bewusstsein geändert“. Even the CBRC has reportedly hired 25 overseas professionals for eleven departments including supervision and auditing.

772 Like for the chief credit officer at the China Construction Bank. Informal constraints, language and cultural differences have often prevented foreign workforce to enter the market.

773 In 2000 in Henan province 69 percent of the limited liability companies had employee representatives on the board of supervisors. In Hebei province even 98 percent had this. In articles 45 and 68 of the Company Law it is stated that workers should be proportionally elected as board members when state-owned or state-funded, see [Tenev, 2002], p.41f.

collateralization[774] and relationship banking, consumer loans and fee-based business have gained importance[775]. As a result banks grade up risk management expertise even though the underlying mentality shift has not reached all layers[776]. The introduction of credit information systems like the Enterprise Credit Registry and Inquiry System and the personal credit information database[777] have increased risk-awareness and will reduce the volume of bogus loans due to better insight in customer data. The underlying mentality shift is also documented by the increasing number of private firms which collect corporate credit data to protect banks from defaults[778]. With accelerating innovative strength of Chinese banks through foreign investors or new staff the control of risks is vital since lacking experience with high-loss market-downturns has influenced banker's mentalities and has increased risk appetite especially in times where credit margins are narrowing. Some products such as credit derivatives are still not admitted in China but the fast innovation which is e.g. channelled through markets like Hong Kong has to be processed by all market participants, including the regulating agencies[779]. Public monitoring mechanisms like rating agencies are core to promote

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774 For example up to 90 percent of the loan books are collateralized. In addition government decisions tend to heavily influence the success of a project or investment.

775 Profit margins are under pressure due to high deposits but fee-based revenues are increasing; see Financial Times, 7. April 2006, p.15, "Higher taxes and lower lending hit CCB profits".

776 This shows for example in the still rare consultation of trusted auditors. Some branches are not even equipped with basic IT tools so that books are kept by hand.

777 The latter is operational since end of 2005 and available for all qualified commercial banks and some rural credit cooperatives online. For more details see Provisional Rules on Management of Individual Credit Information Database, PBoC. With the authorization of the customer, banks may then access data concerning personal loans, credit cards and guarantees. The database is run by the PBoC and can only be used by banks when a customer applies for credit or credit cards or wants to serve as a guarantor. Regions where the data base is starting to work are Beijing, Chonqing, Guangdong, Guangxi, Hunan, Shaanxi, Sichuan, Zhejiang; see www.scmp.com, 5. July 2005, "Credit database expands".

778 Among those are China Chengxin Credit Management an Shanghai Far East Credit Rating Co.; see Shanghai Daily, 31. August 2005, p.9, „Database reduces loan risk" by Zhu Yanyan. In 2004 China UnionPay - the national payment network - has introduced an individual credit blacklist nationwide which collects data from domestic banks. China UnionPay is subject to PBoC regulation which was developed in cooperation with electronic payment task forces of the government. It is a China-wide payment and switching network which still has a monopoly in RMB cards while dual or foreign currency cards may be issued under Master/Visa standards. Around 850 million bank cards have been issued in China with rapid growth of around 20 percent see e.g. [Gong, 2005], p.38.

779 Currently, the CBRC authorizes new banking services and products via positive-lists. Favourable treatment is usually granted to state-owned banks when they experimentally launch certain new products. Around the same time as the regulations were passed the Bank of China introduced a real-time treasury and capital markets system to which also the derivatives business is going to be linked. In February 2004 the CBRC has issued the first set of guidelines to govern derivatives business. The new rules have allowed commercially reasonable OTC derivatives which are not exclusively used for hedging. Banks with an onshore branch were allowed to conduct business with the adequate license.

an innovatory mentality shift due to their informational role and their perpetual monitoring of market developments. The general bias towards new technology in the Chinese society is matched by the demands of bank customers who want to capitalize on sophisticated capital market products and are pushing for their permission to Mainland China. With ongoing reforms for example exporters will be exposed to increasing currency risks[780] which need hedging. However, even though the Bank of China has a traditional exposure to financial markets and their innovations the market pace in financial innovation is currently set by foreign banks like Citigroup, HSBC or Standard Chartered who have invested in the necessary expensive licenses. The capacity to innovate in Chinese banks is most likely to be found in banks with networks of overseas branches or corresponding banks.

### 2.4.3. An Institutional Analysis of Informal Market-Stabilizing Institutions

Informal market-stabilizing institutions are considered to be important to align conflicting interests and to strengthen common interests between market participants. For instance, credibility levels in China are significantly influenced by specific performance criteria but are also vital to establish the separating equilibria to achieve defined goals. These goals comprise an effective regulation and supervision or the possibility to generate profits or to obtain e.g. credit from a bank. In the pursuit of these goals and on the way to generate necessary credibility levels, a variety of informational and incentive problems in economic interaction occur. The specific extent of these problems in the Chinese banking sector depends both on the prevailing credibility levels and on the level of credibility which the different market actors aim at. Especially rogue players in the credit markets capitalize on ex-post opportunism and deviate from contracts with banks to provide accurate information or to repay loans. The incurring costs of reduced trust levels in form of e.g. higher control costs are socialized. Free-riding on the common interest to build reliable market structures and to contribute to economic growth has already destroyed mutual trust between market actors and especially with foreign investors. Here, the credibility levels are not high enough and signals are still distorted. The lacking degree of transparency reinforces the existing complex agency problems in the Chinese banking sector as described above. In this environment low credibility levels market participants can pursue rent-seeking opportunities and can play other actors off against each other. Market participants thus have to seek solutions to overcome the

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This partly prevented investment banks from entering the market; see www.thebanker.com, 2. August 2004, p.32, “China takes first liberalisation step”.

credibility gap prevailing in the market. The result can be cronyism and side-contracts to the official set of institutions. This implies that players mostly rely on small circles of people which can be observed in China quite clearly. Here, the clan or the family is the core of economic and social interaction. External players are attributed significantly lower trust levels and it is widely accepted to deviate from official and formal rules in economic interaction with them. Hence, the reduced credibility levels set incentives for market participants to neglect the official rule set and to withdraw from the officially sanctioned economic sphere. Especially when the government is involved, e.g. in tax collection, the acceptance of defecting strategies is still high within China. One important variable here is the degree of government discretion, especially on sub-national levels. This deviation from a rules-based system by the government itself undermines credibility and increases uncertainty in economic interaction. The value of the entire formal institutional system in China is thus reduced. With no systematic official sanctions to be feared, formal institutions can not channel economic interaction - and informal and decentralized constraints like credibility within the clan or family gain importance. The growing complexity of the financial sector in China, a partly withdrawing government and a lack of private monitoring and risk management mechanisms have, however, even increased the importance of trust and credibility in the banking sector. The much discussed divergence between population groups and geographical locations and a lack of political participation further reduces credibility and trust levels between market participants and can foster fragmentation and regional free-riding as well as diminished incentives to act self-responsibly[781]. The resulting asymmetric information concerning market rules can lead to collectively irrational behaviour which can be rational on an individual level with negative repercussions for macroprudential indicators. For example the high extent of government discretion in many areas in China can foster contagion, can indirectly harm asset quality as well as profitability and can foster a lending boom since an alignment of interests through reliable rules is lacking - leading to high transaction costs[782]. However, the banking sector in China is perceived as a specific case by market participants in which the central government and the relevant government agencies like the bank regulator CBRC play a crucial role. The trust in these agencies to control the reform process in the banking sector is

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780 On company reactions to the exchange rate shift see for example China Daily, 1.-7. August 2005, Business Weekly, “Currency Options”.

781 This can also support inefficient levels of state activity and reliance; see for example [Raiser, 1992], p.24ff.

782 With insufficient communication tools and transparency as well as little broad education about financial markets contagion, e.g. herding may occur more easily.

quite high since misbehaviour is often attributed to lower state and party levels. Additionally, the high credibility levels also reflect a lacking risk-awareness and a lack of experience with severe crisis situations. As a result these high credibility levels and the fear of more coherent sanctions set positive incentives for e.g. banks to adhere to capital adequacy requirements and to pursue good management. While this reduces portfolio risks of banks it also reduces risk spreads and attracts investors so that the current impact of credibility levels in the Chinese banking sector is rather positive but possibly not sustainable.

These issues already indicate that conflicting interests concerning bank staff qualification and the innovatory power of the Chinese banking sector strongly depend on the mentality of market participants. The evolution of a new banking culture based on commercial criteria and a better allocation of knowledge and management capacities is often hampered by differing interests. In recent years it has become obvious that the mentality and qualification of bank staff is one main source of informational and incentive problems in the banking sector[783]. Currently, the mentality of market participants in the Chinese banking sector is strongly influenced by the dynamic changes after the first economic reforms. Many top officials and young professionals are dedicated and hard working so that the relevant expertise for the banking business basically exists in China. The strong pragmatic sense and the business-orientation of Chinese market players additionally help to push market development and to innovate. The impact on bank stability is, however, unclear. For example lacking business cycle experience complicates the staff evaluation of collateral values, default rates and capital depletion. The high economic growth rates have further reduced the incentive to extract these market signals and have induced a higher risk-appetite in bank staff and other market participants. Additionally, other variables distort the incentive scheme leading to a misalignment of interests. One of these variables is the still large degree of government influence on staff recruitment. While the CBRC fit-and-proper tests[784] for senior personnel have helped to curb local influence on bank management, existing banks were exempted from this requirement[785]. The ongoing job rotation for top managers may in fact be more harmful than helpful today. With every rotation precious and specific management knowledge is lost and additionally, managers have an incentive to feel obliged to actors in the political sphere

783 To support these qualifications e.g. the IFC has invested in six banks in China. It has indicated that these competences can only be acquired over time, see e.g. Javed Hamid, Speech at SIBFI on 23. April 2005, “Corporate Governance and Banking reform in China”.

784 See Article 20 of the Law on Banking Regulation and Supervision and article 24 of the Commercial Bank Law.

who determine their next postings. This distortion creates management incentives to avoid conflicts with influential local governments or other government agencies even when the bank's economic success is affected. Especially changes of former regulators into banks and vice versa can add to these mentality and qualification problems when not handled carefully[786].

The strong role of the state together with the lack of performance-based contracts for bank managers implies diminished self-responsibility and accountability which reduces the intrinsic incentive to reorganize banks and to restructure non-performing loans[787]. The current mere compliance-oriented mentality in the banking sector may be insufficient to cope with the upcoming challenges of an open banking sector since prudence and a more proactive risk management approach is underdeveloped. While some banks are induced to take excessive risks others have reacted to the existing inefficiencies by avoiding risks which has deprived them of new business opportunities. The still observed strong obedience to senior management and the implied waiving of responsibility has reduced incentives for sound management and has increased the risks for asset quality since existing expertise is not fully capitalized upon. The perception of contracts as negotiable elements of economic interaction can create additional distortions. Especially when this mentality meets standardized credit risk management procedures, risks may not be detected immediately. The implied post-contractual opportunism and bargaining can thus create credit risks and may additionally reduce the incentive for bank staff to assess and monitor risks correctly. Foreign banks which usually have less valuable guanxi-connections and a reduced bargaining power may accumulate undesired risk positions due to a lack of understanding of the Chinese business conduct. Another rather negative parameter value of the underlying mentality is a reduced incentive to report business information correctly. Window dressing and multiple balance sheets are consequences that increase problems in the banking business. These incidents occur both in - mostly troubled - banks and in enterprises where bad loans are sold prior to reporting days with a buy-back guarantee to disguise the true financial status. Hence, management soundness and asset quality suffer significantly. In a less harmful way mentality in China fosters collective responsibility and may thus lead to moral hazard issues, e.g. concerning bank recapitalizations. Instead of restructuring loan books and operations banks are induced to

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785 Due to Articles 17, 2 and 87 of the Commercial Bank Law. On this issues see among others [Li, 1997], p.207.

786 The appointment of Liu Mingkang as CBRC head was probably a measure with positive results though. Negative results were observed in Japan in the process of amakundori - the “descent from heaven”.

787 Strong competition can, however, help to overcome these flaws.

apply for financial support. As an analogy, bank lending to corporates today depends both on the financial resources of the borrowers and the existing guanxi to the government - since those are relevant to obtain official support. This leads to an inefficient allocation of resources in banks and enterprises - away from the core business into political schmoozing. Contrary to this, an underdeveloped collective and cooperative mentality concerning supervision and innovation has hampered for example the exchange of credit information via the databases since banks are reluctant to share customer information in a highly competitive market. The resulting deterioration of asset quality is then socialized as indicated above. Also, the high importance of rankings has already disturbed cooperation between market players, e.g. in the case of financial conglomerates with non-financial parent companies. It has shown not only in the Chinese context that the complex structures of these entities foster the exploitation of insider information[788]. Via management flaws and lowered profitability these conglomerates can pose risks for lender's assets. A successful supervision of these structures would imply a supervisory approach based on self-responsibility and internal controls which is so far hardly supported by prevailing business conduct in China and the underlying mentality. As a consequence the innovatory capacity and future growth and profit prospects are artificially lowered and innovative products - which can contribute to the economic survival of Chinese banks - are only reluctantly permitted by the CBRC to avoid additional risks to macroprudential indicators like bank's risk position. This can harm asset quality and increases the risk of lending booms and contagion. However, the high dynamics and strong motivation in the Chinese banking sector and the whole economy has positively contributed to investor confidence which stabilizes the exchange rate and the balance of payments. Despite the currently positive impacts the exchange rate regime and trade surpluses can trigger exogenous shocks like trade disputes in the future which would harm banking sector stability significantly.

788 A tendency also observed e.g. in the context of the chaebol in South Korea.

## IV Conclusion

The goal of this paper was to assess the impact of specific institutions on banking sector stability in China. Banking sector stability was approximated by a range of macroprudential indicators derived from different widely-accepted early warning systems on banking sector distress. The underlying implicit hypothesis test assumed that an institution should have either a neutral or a positive impact on these macroprudential indicators for not being rejected. In case of a negative impact - i.e. in case of severe distortions of the incentive scheme - the respective institution was rejected in its current form. Consequently, the conducted analysis has identified certain institutions which would need to be adjusted to contribute to banking sector stability and a sustainable development of the Chinese banking sector. The institutions with a clearly negative impact are the still high degree of state ownership, insufficient insolvency procedures for banks and enterprises, implicit and explicit state guarantees, the still highly regulated interest and exchange rate regimes as well as insufficient governance standards and a lack of rule of law. Institutions with a mixed or neutral impact are the lender of last resort function of the central bank, the fiscal policy and the guanxi- or relationship-oriented way to conduct business in China. Institutions which contribute positively to banking sector stability in China are the accounting and disclosure requirements, the competitive situation, the capital adequacy requirements, the developing capital markets and the still high credibility level of the Chinese central government and its agencies. Nevertheless, it showed that institutions with a positive or a neutral impact may partly also have negative implications for the analyzed macroprudential indicators. Only if these were offset or overcompensated, the institution qualified as neutral or even positive. In the following the most relevant impacts are described in more detail referring to the four groups of tested institutions, i.e. formal market-regulating and formal market-stabilizing institutions as well as informal market-regulating and informal market-stabilizing institutions.

Among the formal market-regulating institutions competition, accounting and disclosure requirements and capital adequacy rules have passed the hypothesis test, i.e. contribute positively to banking sector stability. The form and degree of competition in the Chinese banking sectors has for example a positive impact on indicators like capital adequacy, management soundness and economic growth. Despite these significant positive findings also negative tendencies were revealed. For instance that the fierce competition in the overbanked Chinese markets induces market participants to take higher risks, neglect adequate risk-pricing and reduces bank profitability in China. The ambivalent market-access regulation for foreign banks and the insufficient market-exit policies for unviable banks add to uncertainty in the Chinese banking sector. These factors lead to a mixed impact on the indicators profitability, asset quality, and interest rate margins. The developments may also contribute at the margin to an unhealthy lending boom with the risks of further non-performing loans. However, the positive pressure of competition on banks has reduced the negative repercussions on these macroprudential indicators so that a net positive effect is secured.

The declining but still large proportion of government ownership in the Chinese banking sector has shown to significantly harm banking sector stability today. The effect may have been more positive in recent years but the growing complexity and market-driven mentality in the banking sector today overstrains the relevant government agencies. Growing conflicts of interests between different government factions have contributed to conflicting policy approaches and reduced incentives for private monitoring and thus good governance. Moral hazard issues still arise in form of demands for recapitalization since the separation of ownership, management and regulation is incomplete and in many cases less successful than officially expected. While the multiple-agent and multiple-principal situation for banks has added costly distortions to bank management, the large number of state-owned banks and enterprises prevents effective government control over local management. Hence, the microprudential indicators asset quality, management soundness, profitability are affected negatively. On the macroeconomic side government ownership increases the risk of unhealthy lending booms and contagion throughout the banking sector while the overall economic growth potential is reduced. This constitutes the current net negative impact of government ownership on macroprudential indicators in China. Under certain circumstances the increasing number of planned or conducted public offerings of Chinese banks at stock exchanges can change this situation. However, it remains to be seen how efficient stock markets turn out to work under stress and how the actual control over banks will be distributed afterwards. For privatization to become a success, many of the analyzed institutions would need to play together to reduce the significant risk of asset price inflation and further distortions in the incentive scheme for managers in the longer term.

Since accounting and disclosure requirements have been subject to reforms, a positive trend in this field has been established. Many companies still work with multiple balance sheets to reduce taxes or obtain credit by misreporting earnings. Nationwide credit databases are not yet established so that especially credit risks persist in the mid-term. However, improvements have been experienced not only on the bank customer side. Stricter accounting and disclosure requirements have also increased incentives to install internal control and risk-management mechanisms which has positively impacted on capital adequacy ratios, asset quality, management soundness while it has reduced the risk for contagion in the Chinese banking sector. The impact on profitability is currently mixed with a positive outlook due to high costs of technology and personnel for Chinese banks even though the net effect of the specific Chinese disclosure and accounting requirements is positive.

These requirements are tightly intertwined with the impact generated by capital adequacy and liquidity requirements for Chinese and foreign banks in the People's Republic. False reporting between local branches and bank headquarters or illegal window dressing still hampers their efficiency in practice. Despite this and despite the discussion that a capital adequacy ratio of around eight percent may not protect banks from capital depletion in times of distress in high-risk-environments like China, the indirect lending cap for banks has a positive impact on macroprudential indicators. Banks have an incentive to allocate their capital more efficiently, their risk-awareness and management soundness is increased and risk positions are priced-in better. Further, lending booms are capped and thus the risk of contagion is reduced so that capital adequacy and liquidity requirements contribute positively to banking sector stability.

In the case of unviable banks and enterprises the lacking comprehensive insolvency law currently harms banking sector stability. The application of the existing fragmented rules is incoherent since national and sub-national governments have diverging interests with respect to ceasing the operations of state-affiliated banks and companies. As a result, the disincentive of market exits - in particular for unviable banks - by insolvency is diminished and moral hazard issues arise in many cases. Due to its incompleteness, the current framework fosters creditor passivity and reduces the value of collateral for bank credit since current provisions categorize bank claims as subordinated to personnel and government claims. Hence, the existing insolvency rules impact negatively on capital adequacy ratios, asset quality, and management soundness. They increase the banks' risk positions, foster the risk of contagion among banks and between the banking sector and the enterprise sector, and artificially reduce China's growth potential, e.g. due to higher uncertainty.

In this context, the role of still existing implicit or explicit state guarantees adds to distortions in the incentive scheme of market participants. While government guarantees on different levels reinforce the risk of an incoherent official strategy towards the banking sector they also significantly reduce the incentive for banks to operate under commercial and economic criteria. The common link between government bail-outs and moral hazard applies and banks are induced to socialize losses to the taxpayer. The primary commercialization strategy of the government is still hampered, especially concerning smaller local banks with relevance for the regional economy. An overall damage to the banking sector incurs as an unintended but accepted consequence in an attempt to rescue unviable banks and to reduce the social costs of transition into a commercial banking system. With this more socio-political goal set, high costs incur in the form of a strongly negative impact of government guarantees on macroprudential indicators like asset quality, management soundness, and bank profitability while setting incentives for increased bank lending beyond commercial and economic criteria.

In the group of formal market-stabilizing institutions in particular the slow but continuously developing capital markets have a positive impact on macroprudential indicators while both the interest rate and the exchange rate regime have a destabilizing effect on the banking sector. The current Chinese fiscal policy has a more mixed impact on macroprudential indicators.

The Chinese capital markets already create incentives for market participants to enter new areas of business, to generate profit and to transform risks. While it improves profitability and bank asset quality, the capital market also provides market participants with a growing - but still limited - range of alternative investment and refinancing opportunities. Government reliance of banks and companies is reduced and especially banks can better withstand government recourse. Since successful capital markets demand a certain degree of transparency, the impact of capital markets is generally positive. Since property rights transfers are facilitated by the capital markets, bank consolidation can be fostered which could help to stabilize the overbanked Chinese market. Despite the pitfalls of the still developing capital markets asset quality and management soundness has already improved in banks and enterprises which follow a listing strategy. With the gradual international opening improved refinancing possibilities and increased foreign portfolio investment also interest rates and exchange rates may get more market-oriented and potential capital outflows may be offset. However, the contribution of capital markets to sustainable economic growth still depends on its actual capacity to provide capital to private companies which are often deprived of access to the credit market. And problems with financial data, transparency, and admission procedures to the capital markets still prevail and may cause severe backlashes when not tackled appropriately.

The impact of the fiscal policy setting on the Chinese banking sector has improved recently by fiscal reforms, increased tax revenues and the ongoing commercialization of banks. Fiscal reforms have at least partly clarified and centralized competences in tax collection and distribution. As a result the incentive for the government to use the state-owned banks as extra-budgetary entities for social spending has diminished. Additionally, with increasing tax revenues a reduction of bank taxation and in particular a higher tax-deductibility for loan-loss provisions could be possible in the future. However, while the current policies have prepared the ground for these possible changes some still existing legal provisions may facilitate government recourse to banks. Hence, despite the large amounts of official resources that were used to recapitalize the banking sector the net impact of the current fiscal policy on macroprudential indicators is mixed.

Despite recent reform steps, both the interest rate regime and the exchange rate regime are still highly regulated institutions. The high interest margins for Chinese banks were historically necessary to provide revenue sources for undercapitalized and inefficient domestic banks but have also slowed down a shift of the business focus towards fee-based income which gains importance in large banks. In the competitive business environment interest margins are under pressure and the adjustments of the reference interest rate have lagged behind the economic reality. And while refinancing via deposits for some groups of banks is still difficult the most severe distortion created by the interest rate regime is the lacking sensitivity of market participants for the signals and information usually implied in the interest rate. This leads to capital misallocations, the continued use of administrative monetary policy measures like window guidance and partly decouples lending from the deposit and interest rate situation. Hence, the current regime harms asset quality, management soundness and the liquidity position of many banks. Economic growth suffers due to distortions in resource allocation. Additionally, the risk of contagion and of lending booms due to distorted interest rates - which do not adequately reflect risks - increases.

The exchange rate regime has often been criticized to preserve an artificially low exchange rate to promote growth. Certainly, the stability implied in the Chinese quasi peg has induced economic growth. Additional capital controls have reduced the risk of contagion. However, with increasing international pressure on the exchange rate regime its reliability has suffered and speculation today has reached a degree where exchange rate predictability and thus the intrinsic value of the regime is reduced. The increasing difficulties of the central bank to control money aggregates has increased the speculative pressure on the Chinese currency while at the same time market participants have not yet developed an adequate risk-awareness for foreign exchange risks which can significantly harm bank asset quality and profitability through the loan books. Consequently, liquidity and risk positions of banks are affected negatively. The high speculative pressure on the balance of payments and the high degree of liquidity resulting from the exchange rate regime have partly induced a lending and asset price boom so that the net effect of the current exchange rate regime is negative, as commonly assumed.

Contrary to this almost intuitive assessment, the analysis of the net impact of the guanxi-connections on macroprudential indicators is rather difficult. The growing degree of formalization and codification in the People's Republic increasingly conflicts with informal guanxi-networks. Interference from e.g. different government levels with the banking sector has created ambiguous incentives for market participants so that commercial criteria in lending operations are still circumvented. Under this ambivalent incentive scheme ex-post opportunism is fostered which has contributed to time-inconsistent formal institutional solutions. The high importance of guanxi has deprived small and medium companies of access to the credit markets since banks have reduced incentives to grant credit to these customers with less valuable guanxi. Hence, guanxi artificially shorten the time-horizon of market participants and hamper innovatory business strategies. The in many cases resulting politicization of the banking sector overstrains management capacities and diverts attention and resources to less efficient use. The differing connections to government agencies can also further contribute to a fragmentation of the banking sector since official entities may favour banks with historic ties to the government in project financing and recapitalization efforts. However, since banks are interested in keeping good relations to the authorities the implementation of administrative measures in e.g. exchange rate and monetary policy is facilitated. Window guidance by the People's Bank for example may not be the most sophisticated technical monetary instrument but has partly helped to control excessive developments e.g. in lending. The necessary preservation of guanxi to the central bank induces the banking sector to follow this moral suasion at least in part. As a result the impact of guanxi is negative concerning asset quality, profitability and management soundness. It nevertheless has a positive impact on adherence to capital adequacy regulation, interest rates, and may reduce the risk of contagion. With the distortion of lending decisions and the undermining impact on other formal institutions the overall impact is mixed but with a negative tendency.

Governance in Chinese banks is highly intertwined with the aspect of guanxi and the negative repercussions of informal interference with formal institutions. In fact, many parts of the formal governance code for banks and companies in the People's Republic are quite similar to governance standards common in OECD countries. Certainly, there are flaws like the remaining political influence on bank top management recruitment policies and the lingering influence of party bodies in banks. The more severe distortions, however, result from the perception that formal governance codes are useful in general but are ignored in individual cases. This discretionary informal approach to governance currently contributes to multiple-principle situations for bank staff and has prevented the evolution of reliable mechanisms for private supervision and monitoring. The goal of increasing accountability especially in local branches is missed by far in many banks. As a result almost all macroprudential indicators are directly or indirectly negatively affected by the current state of governance structures which fosters inefficient resource allocation in Chinese banks.

The lack of rule of law in China further contributes to uncertainty in the banking sector. Many legal provisions still need significant interpretation - which is far from being coherent among provinces. The court system is inefficient, verdicts and cases are delayed and not transparent. Both the legislative process and the court system are highly politicized and subject to infighting between different government factions. The observed discretionary power of courts and especially local governments has fostered discrimination of legal parties and judicial corruption in many forms. This lack of reputation has induced market participants not to recur to the court system to settle disputes and has reinforced incentives for non-adherence to regulation and increased reliance on traditional guanxi. Additionally, the lack of rule of law has diminished the effectiveness of other formal institutions, e.g. insolvency procedures. As a result, especially asset quality, management soundness and bank risk positions are negatively affected. On the macroeconomic side excessive borrowing has been a result and international investors may be deterred so that capital may start leaving the country in case of distress. This, of course, affects interest rates, e.g. in the interbank markets and the exchange rate as well as economic growth.

Informal market-stabilizing institutions currently add surprisingly little distortions to the incentive scheme of market participants in the Chinese banking sector. Obviously, turf battles in the administration and rogue players on the national and the sub-national level in governments have significantly reduced the reputation of certain governments or persons and the Communist Party in general. Political pressure on Chinese citizens has so far prevented a far-reaching public discussion about government quality which has preserved its reputation especially with the less politically interested people. In particular, the lacking experience in China concerning business cycle movements and severe financial crises has kept risk-awareness at artificially low levels. As a result the economy is expected to be controlled by the government to secure economic growth and social continuity. However, in the future this credibility level could be reduced due to its highly political nature and the large degree of government discretion which could be blamed for misallocations of resources. The underdeveloped sense of risk-awareness has also prevented market participants to more rely on private monitoring of banks and companies - leading to a high degree of government dependence. Despite these implied risks for the future the current credibility level still support capital adequacy ratios, management soundness, and tend to reduce banking risks. It also stabilizes the interest rates and the exchange rate which is vulnerable to speculative attacks. While economic growth is rather positively affected, indicators like asset quality and bank profitability are subject to mixed influences since government influence is still widely accepted.

The aspects of mentality, qualification and innovation are related and also depend on the degree of government presence in the economic and social sphere. The economic transformation and its success has inspired and liberated the business spirit of many Chinese who are working hard to improve their material position and to regain China's position as a global leader. The large degree of government presence and reliance has so far dampened these tendencies, e.g. by the positive-list approach to the authorization of bank services. A significant mental ambivalence can be observed concerning the legal framework. In many cases bureaucratic approaches are common and accepted. However, ignoring rules and regulations is also common. In many cases protective rules are only applied within a small circle, e.g. the family structure. The perceived collectiveness of the Chinese society is interrupted in many cases by individual defection from specific rules. Rogue players have frequently harmed tax authorities and banks - through tax evasion or bogus loans - without generating significant public disapproval. The pursuit of material success is considered to be a core and officially approved right for every individual and due to the permanently changing legal framework abuses are considered almost inevitable. Hence, the impact of mentality, qualification and innovation is rather mixed. Some indicators like the exchange rate, the balance of payments and economic growth profit from these tendencies and an increasing investor confidence in these developments. Other indicators like bank asset quality have already suffered and the risks of contagion have increased.

The conducted positive analysis has already indicated some aspects where reforms would be essential to enhance the stability of the banking sector. Reforms drawing on this research would target and increase self-responsibility of market participants and would further and slowly reduce government presence in the markets. This would over time increase risk awareness and the sensitivity for market signals like interest rates. It would also contribute to less government reliance and dependence. To achieve this, further steps towards more transparency in all areas seem necessary in the short term which would also induce market participants to adhere to rules and regulation. In particular, a significantly more coherent government conduct, less government discretion and more participation would improve the status of formal institutions. Clarifications in foreign bank regulation, bank taxation and accounting, a new insolvency and property law with improved rights for banks, and the abolition of government guarantees for state-affiliated banks could be first steps. Together with stricter and more coherently applied sanctioning mechanisms this could improve banking sector stability and could open more leeway for further reforms of e.g. the exchange and interest rate regimes. Hence, broadening the applied positive analysis could include a more normative approach.

Currently, high growth rates cover banking sector problems and reforms like modest interest rate liberalization signal market-orientation. Still, potential economic downturns and political like trade disputes or tensions with neighbouring regions could escalate and shock the banking sector. Further, there are domestic issues like discussions about rural welfare or the Chinese pension system which may undermine bank stability. The impact of such a shock significantly depends on the political will and the financial resources to resolve banking sector distress. So far, banking sector reforms have been an integral part of the policy agenda and closely linked to the reputation of the central government. With an increasingly complex environment and ongoing reforms central steering and influence will, however, diminish. This again fosters the need for reforms towards a more decentralized and flexible economy which would be better capable of absorbing exogenous shocks. Considering all these factors, it will become increasingly important to implement sustainable mechanisms to improve the institutional impact on banking sector stability. In some areas, for example concerning the rule of law, institutional change may be interrelated with changes in the broader political structures which may slow down the progress required to stabilise the banking sector for the longer term.

# Annex 1 Matrix Assumptions

| | Formal Market-Regulating Institutions | | | | | | |
|---|---|---|---|---|---|---|---|
| | Preventive | | | | | Protective | |
| Macroprudential Indicators | Competition | Government Ownership | Accounting and Disclosure Requirements | Capital Adequacy and Liquidity Requirements | Insolvency Procedures | Lender of Last Resort | Government Guarantees and Deposit Insaurance |
| Microprudential Indicators | | | | | | | |
| Capital Adequacy | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 | 🟧 |
| Asset Quality | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 | 🟩 |
| Management Soundness | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 |
| Profitability | 🟩 | 🟩 | 🟧 | 🟧 | 🟧 | 🟩 | 🟧 |
| Liquidity | 🟩 | 🟧 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 |
| Spreads and Market-Risk Sensitivity | 🟩 | 🟧 | 🟩 | 🟩 | 🟩 | 🟧 | 🟩 |
| Macroeconomic Indicators | | | | | | | |
| Fiscal Policy | 🟧 | 🟩 | 🟧 | 🟩 | 🟩 | 🟧 | 🟩 |
| Interest Rates | 🟩 | 🟩 | 🟥 | 🟩 | 🟩 | 🟩 | 🟩 |
| Exchange Rate | 🟧 | 🟧 | 🟥 | 🟧 | 🟧 | 🟥 | 🟧 |
| Balance of Payments | 🟧 | 🟧 | 🟥 | 🟥 | 🟥 | 🟥 | 🟥 |
| Lending and Asset Prices | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟩 | 🟩 |
| Economic Growth | 🟧 | 🟩 | 🟧 | 🟧 | 🟧 | 🟧 | 🟧 |
| Contagion | 🟧 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 |

| | |
|---|---|
| 🟩 | Direct Impact Assumed |
| 🟧 | Reduced/Indirect Impact Assumed |
| 🟥 | No Impact Assumed |

| | Formal Market-Stabilizing Institutions | | | | Informal Market-Regulating Institutions | | |
|---|---|---|---|---|---|---|---|
| **Macroprudential Indicators** | **Capital Markets** | **Fiscal Policy** | **Interest Rate Regime** | **Exchange Rate Regime** | **Guanxi - Networks and Politicization** | **Governance** | **Rule of Law** |
| **Microprudential Indicators** | | | | | | | |
| Capital Adequacy | 🟩 | 🟩 | 🟥 | 🟥 | 🟩 | 🟩 | 🟧 |
| Asset Quality | 🟩 | 🟩 | 🟩 | 🟥 | 🟩 | 🟩 | 🟧 |
| Management Soundness | 🟩 | 🟧 | 🟧 | 🟧 | 🟩 | 🟩 | 🟩 |
| Profitability | 🟧 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 |
| Liquidity | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 |
| Spreads and Market-Risk Sensitivity | 🟩 | 🟧 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 |
| **Macroeconomic Indicators** | | | | | | | |
| Fiscal Policy | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 |
| Interest Rates | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 |
| Exchange Rate | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 | 🟧 |
| Balance of Payments | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 | 🟧 |
| Lending and Asset Prices | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 |
| Economic Growth | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟩 |
| Contagion | 🟩 | 🟩 | 🟩 | 🟩 | 🟩 | 🟧 | 🟧 |

| | |
|---|---|
| 🟩 | Direct Impact Assumed |
| 🟧 | Reduced/Indirect Impact Assumed |
| 🟥 | No Impact Assumed |

| | Informal Market-Stabilizing | |
|---|---|---|
| **Macroprudential Indicators** | **Government and Regulatory Credibility** | **Mentality, Qualification and Innovation** |
| **Microprudential Indicators** | | |
| **Capital Adequacy** | 🟩 | 🟩 |
| **Asset Quality** | 🟩 | 🟩 |
| **Management Soundness** | 🟩 | 🟩 |
| **Profitability** | 🟧 | 🟩 |
| **Liquidity** | 🟧 | 🟩 |
| **Spreads and Market-Risk Sensitivity** | 🟧 | 🟩 |
| **Macroeconomic Indicators** | | |
| **Fiscal Policy** | 🟩 | 🟩 |
| **Interest Rates** | 🟩 | 🟩 |
| **Exchange Rate** | 🟩 | 🟧 |
| **Balance of Payments** | 🟧 | 🟧 |
| **Lending and Asset Prices** | 🟩 | 🟩 |
| **Economic Growth** | 🟩 | 🟩 |
| **Contagion** | 🟩 | 🟩 |

| |
|---|
| 🟩 **Direct Impact Assumed** |
| 🟧 **Reduced/Indirect Impact Assumed** |
| 🟥 **No Impact Assumed** |

# Annex 2 Results

| | Formal Market-Regulating Institutions | | | | | | |
|---|---|---|---|---|---|---|---|
| | Preventive | | | | | Protective | |
| **Macroprudential Indicators** | **Competition** | **Government Ownership** | **Accounting and Disclosure Requirements** | **Capital Adequacy and Liquidity Requirements** | **Insolvency Procedures** | **Lender of Last Resort** | **Government Guarantees and Deposit Insaurance** |
| **Microprudential Indicators** | | | | | | | |
| **Capital Adequacy** | 🟩 | 🟧 | 🟩 | 🟩 | 🟥 | 🟧 | 🟧 |
| **Asset Quality** | 🟧 | 🟥 | 🟩 | 🟩 | 🟥 | 🟧 | 🟥 |
| **Management Soundness** | 🟩 | 🟥 | 🟩 | 🟩 | 🟥 | 🟥 | 🟥 |
| **Profitability** | 🟧 | 🟥 | 🟧 | 🟧 | 🟧 | 🟧 | 🟥 |
| **Liquidity** | 🟩 | 🟧 | 🟧 | 🟩 | 🟧 | 🟩 | 🟧 |
| **Spreads and Market-Risk Sensitivity** | 🟧 | 🟧 | 🟧 | 🟩 | 🟥 | 🟩 | 🟧 |
| **Macroeconomic Indicators** | | | | | | | |
| **Fiscal Policy** | 🟧 | 🟧 | 🟧 | 🟧 | 🟥 | 🟧 | 🟥 |
| **Interest Rates** | 🟧 | 🟧 | not significant | 🟧 | 🟧 | 🟧 | 🟧 |
| **Exchange Rate** | 🟩 | 🟧 | not significant | 🟧 | 🟧 | not significant | 🟧 |
| **Balance of Payments** | 🟩 | 🟧 | not significant | not significant | not significant | not significant | not significant |
| **Lending and Asset Prices** | 🟧 | 🟥 | 🟧 | 🟩 | 🟧 | 🟥 | 🟥 |
| **Economic Growth** | 🟩 | 🟥 | 🟧 | 🟧 | 🟥 | 🟧 | 🟧 |
| **Contagion** | 🟧 | 🟥 | 🟩 | 🟩 | 🟥 | 🟩 | 🟧 |
| **Aggregated Impact** | 🟩 | 🟥 | 🟩 | 🟩 | 🟥 | 🟧 | 🟥 |

| | |
|---|---|
| 🟩 | **Positive Impact** |
| 🟧 | **Mixed Impact** |
| 🟥 | **Negative Impact** |

| | Formal Market-Stabilizing Institutions | | | | Informal Market-Regulating Institutions | | |
|---|---|---|---|---|---|---|---|
| **Macroprudential Indicators** | **Capital Markets** | **Fiscal Policy** | **Interest Rate Regime** | **Exchange Rate Regime** | **Guanxi - Networks and Politicization** | **Governance** | **Rule of Law** |
| **Microprudential Indicators** | | | | | | | |
| **Capital Adequacy** | 🟩 | 🟧 | not significant | not significant | 🟧 | 🟥 | 🟧 |
| **Asset Quality** | 🟩 | 🟧 | 🟥 | not significant | 🟥 | 🟥 | 🟥 |
| **Management Soundness** | 🟩 | 🟧 | 🟥 | 🟧 | 🟥 | 🟥 | 🟥 |
| **Profitability** | 🟧 | 🟧 | 🟧 | 🟧 | 🟧 | 🟥 | 🟧 |
| **Liquidity** | 🟧 | 🟩 | 🟧 | 🟥 | 🟧 | 🟥 | 🟧 |
| **Spreads and Market-Risk Sensitivity** | 🟧 | 🟧 | 🟧 | 🟥 | 🟧 | 🟥 | 🟥 |
| **Macroeconomic Indicators** | | | | | | | |
| **Fiscal Policy** | 🟩 | 🟧 | 🟧 | 🟧 | 🟥 | 🟥 | 🟧 |
| **Interest Rates** | 🟩 | 🟧 | 🟥 | 🟥 | 🟧 | 🟥 | 🟥 |
| **Exchange Rate** | 🟩 | 🟧 | 🟧 | 🟥 | 🟧 | 🟥 | 🟥 |
| **Balance of Payments** | 🟩 | 🟧 | 🟥 | 🟥 | 🟧 | 🟥 | 🟥 |
| **Lending and Asset Prices** | 🟩 | 🟥 | 🟥 | 🟥 | 🟥 | 🟥 | 🟥 |
| **Economic Growth** | 🟩 | 🟧 | 🟥 | 🟩 | 🟧 | 🟥 | 🟥 |
| **Contagion** | 🟧 | 🟧 | 🟥 | 🟧 | 🟧 | 🟥 | 🟥 |
| **Aggregated Impact** | 🟩 | 🟧 | 🟥 | 🟥 | 🟧 | 🟥 | 🟥 |

| | |
|---|---|
| 🟩 | **Positive Impact** |
| 🟧 | **Mixed Impact** |
| 🟥 | **Negative Impact** |

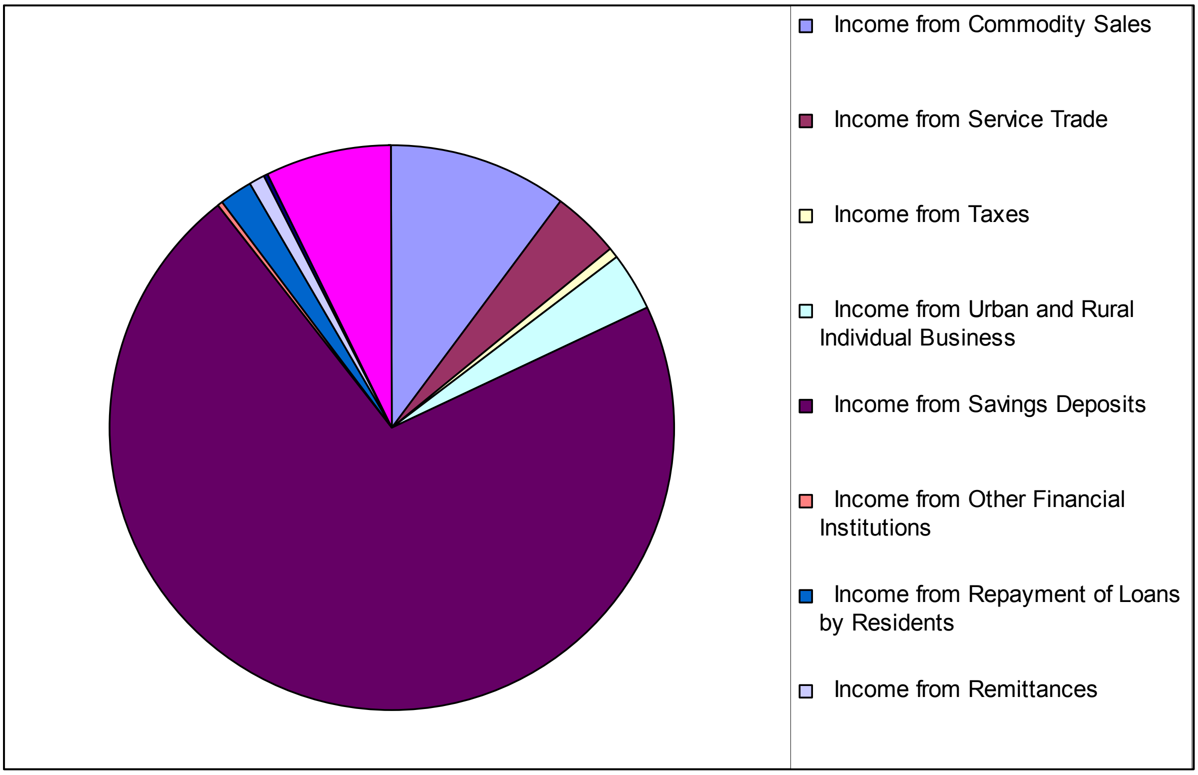
| | Informal Market-Stabilizing | |
|---|---|---|
| Macroprudential Indicators | Credibility and Trust Levels | Mentality and Innovation |
| Microprudential Indicators | | |
| Capital Adequacy | 🟩 | 🟧 |
| Asset Quality | 🟧 | 🟥 |
| Management Soundness | 🟩 | 🟧 |
| Profitability | 🟧 | 🟧 |
| Liquidity | 🟧 | 🟧 |
| Spreads and Market-Risk Sensitivity | 🟩 | 🟧 |
| Macroeconomic Indicators | | |
| Fiscal Policy | 🟧 | 🟧 |
| Interest Rates | 🟩 | 🟥 |
| Exchange Rate | 🟩 | 🟩 |
| Balance of Payments | 🟩 | 🟩 |
| Lending and Asset Prices | 🟧 | 🟥 |
| Economic Growth | 🟩 | 🟩 |
| Contagion | 🟧 | 🟥 |
| Aggregated Impact | 🟩 | 🟧 |

| |
|---|
| 🟩 Positive Impact |
| 🟧 Mixed Impact |
| 🟥 Negative Impact |

## Annex 3 List of Abbreviations

| | |
|---|---|
| ABC | Agricultural Bank of China |
| AMC | Asset Management Corporation |
| BIS | Bank for International Settlements |
| BoC | Bank of China |
| CBRC | China Banking Regulatory Commission |
| CCB | China Construction Bank |
| CCP | Communist Party of China |
| CDB | China Development Bank |
| CIRC | China Insurance Regulatory Commission |
| CITIC | China International Trust and Investment Company |
| CPI | Consumer Price Index |
| CSRC | China Securities Regulatory Commission |
| FAZ | Frankfurter Allgemeine Zeitung |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| ICBC | Industrial and Commercial Bank of China |
| IFC | International Finance Corporation |
| IMF | International Monetary Fund |
| IPO | Initial Public Offering |
| MPC | Monetary Policy Committee |
| NPC | National People’s Congress |
| NPL | Non Performing Loan |
| OECD | Organisation for Economic Co-operation and Development |
| PBoC | People’s Bank of China |
| PRC | People’s Republic of China |
| RMB | Renminbi |
| SAFE | State Administration of Foreign Exchange |
| T-Bonds | Treasury Bonds |
| TIC | Trust and Investment Company |
| USD | US Dollars |
| WTO | World Trade Organization |

## Annex 4 Cash Income of Financial Institutions in Mainland China 2004

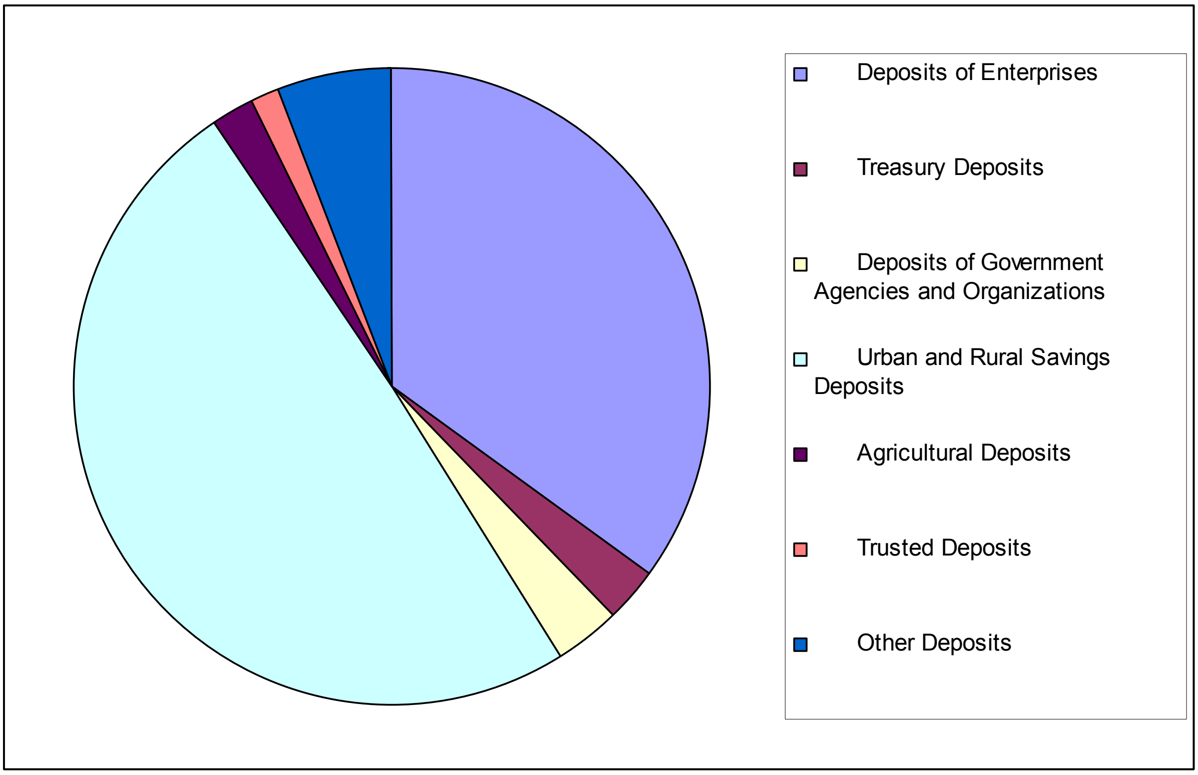



In 100 Million RMB:

| | |
|---|---|
| **Total Income** | **567879,2** |
| Income from Commodity Sales | 57943,9 |
| Income from Service Trade | 22865,0 |
| Income from Taxes | 2880,3 |
| Income from Urban and Rural Individual Business | 19109,5 |
| Income from Savings Deposits | 404743,9 |
| Income from Other Financial Institutions | 2565,2 |
| Income from Repayment of Loans by Residents | 10290,1 |
| Income from Remittances | 5444,3 |
| Income from Securities | 1148,0 |
| Other Income | 40889,2 |

Source: China Statistical Yearbook 2005

## Annex 5 Sources of Deposits in Mainland Banks 2004

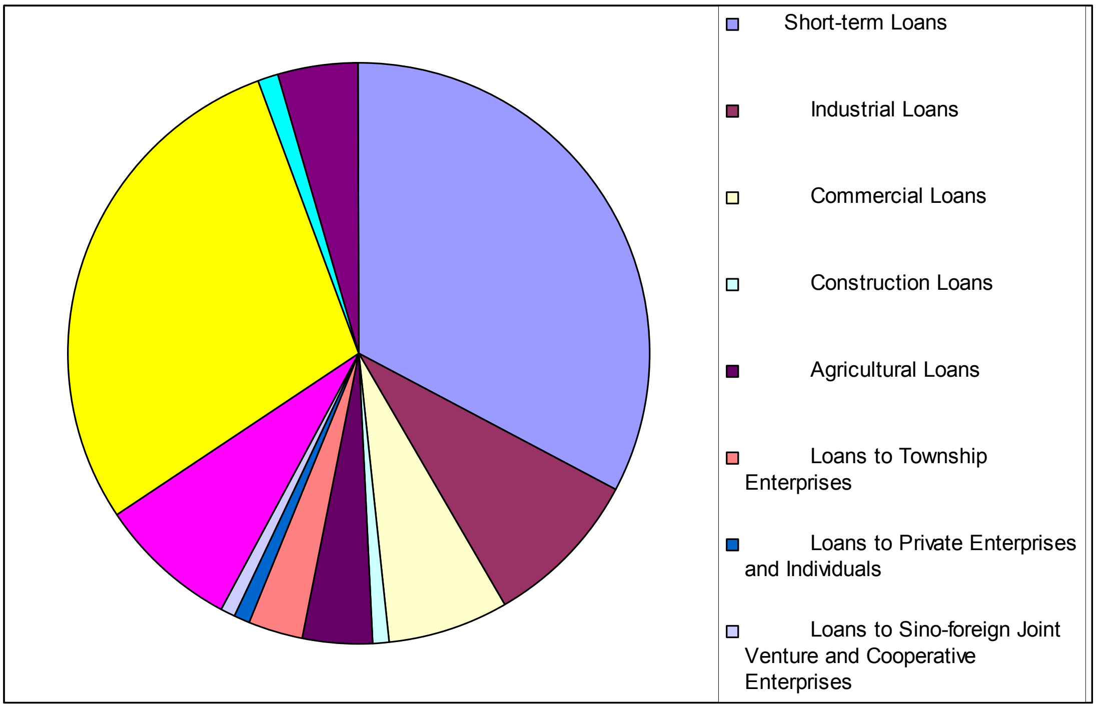



In 100 Million RMB:

| | |
|---|---|
| Deposits | 241424,3 |
| Deposits of Enterprises | 84669,5 |
| Treasury Deposits | 6236,2 |
| Deposits of Government Agencies and Organizations | 8152,4 |
| Urban and Rural Savings Deposits | 119555,4 |
| Agricultural Deposits | 5526,3 |
| Trusted Deposits | 3008,6 |
| Other Deposits | 14276,0 |

Source: China Statistical Yearbook 2005

## Annex 6 Use of Funds (Loans) of Mainland Banks 2004



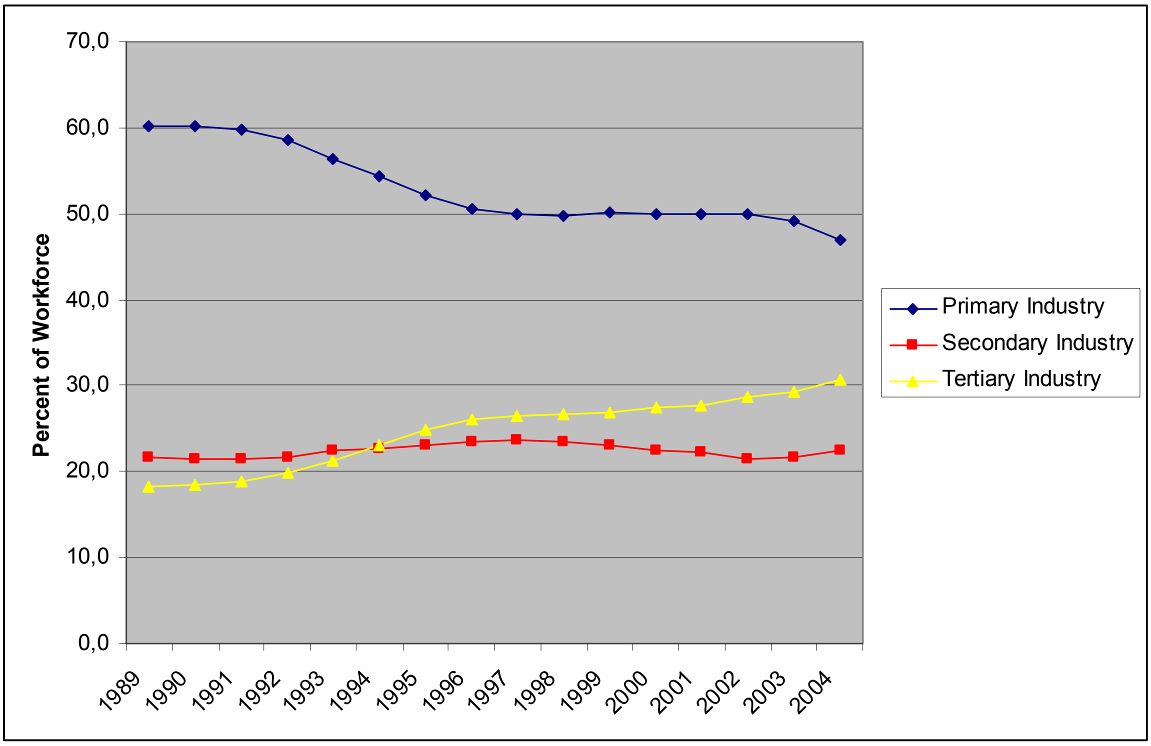

In 100 Million RMB:

| | |
|---|---|
| Loans | 178197,8 |
| Short-term Loans | 86840,6 |
| Industrial Loans | 23896,6 |
| Commercial Loans | 17074,1 |
| Construction Loans | 2780,1 |
| Agricultural Loans | 9843,1 |
| Loans to Township Enterprises | 8069,2 |
| Loans to Private Enterprises and Individuals | 2081,6 |
| Loans to Sino-foreign Joint Venture and Cooperative Enterprises and Foreign-funded Enterprises | 2198,4 |
| Other Short-term Loans | 20897,5 |
| Medium-term & Long-term Loans | 76702,9 |
| Credit Loans | 2721,2 |
| Other Loans | 11933,1 |

Source: China Statistical Yearbook 2005

## Annex 7 Financial Institutions and Employees in Industries in Mainland China 2004

| Item | Number of Units | Number of Staff and Workers |
|---|---|---|
| **Total** | **88.150** | **1.745.120** |
| The People's Bank of China | 2.189 | 140.450 |
| Industrial and Commercial Bank of China | 21.223 | 375.781 |
| Agricultural Bank of China | 31.004 | 489.425 |
| Bank of China | 11.307 | 220.999 |
| Construction Bank of China | 14.585 | 310.391 |
| Agricultural Development Bank of China | 2.275 | 59.487 |
| Bank of Communications | 2.403 | 54.408 |
| Export Import Bank of China | 16 | 834 |
| Shanghai Pudong Development Bank | 329 | 8.817 |
| National Development Bank | 37 | 4.678 |
| CITIC Industrial Bank | 391 | 11.598 |
| China Everbright Bank | 410 | 8.906 |
| China Minsheng Banking Corp., Ltd | 219 | 6.382 |
| China Huaxia Bank | 243 | 7.007 |
| China Merchants Bank | 411 | 17.829 |
| Guangdong Development Bank | 487 | 11.714 |
| Fujian Industrial Bank | 294 | 8.050 |
| Shenzhen Development Bank Co., Ltd | 255 | 6.999 |
| Hengfeng Bank | 72 | 1.365 |




Source: China Statistical Yearbook 2005

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